

# Absolute Tracker systems and accessories

Version 4.0





This catalogue contains the complete range of products and accessories available for Absolute Tracker systems from Hexagon. Whatever the industry or application, the Absolute Tracker has a solution. All of our products and accessories offer the same premium quality and practical design you would expect from a Swiss made product.



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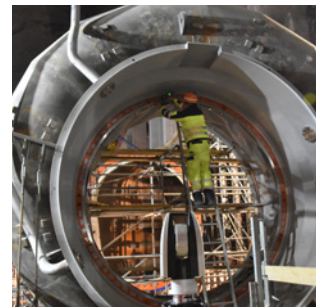
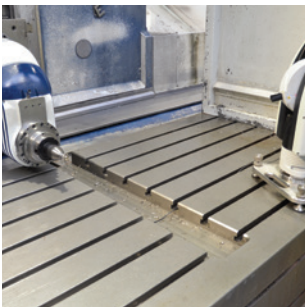
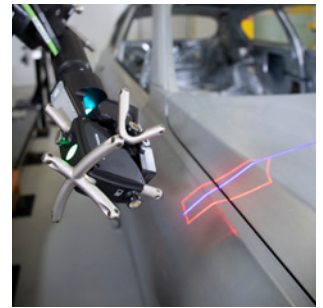
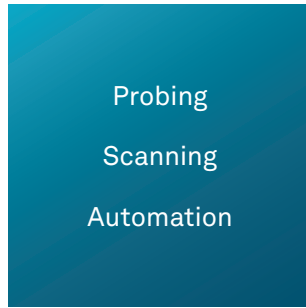
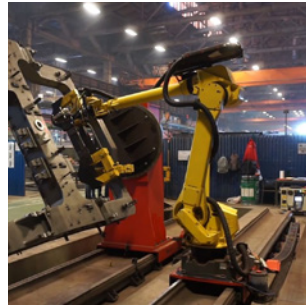
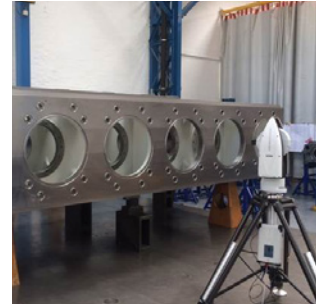
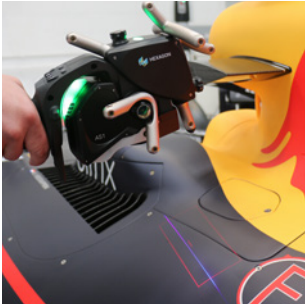
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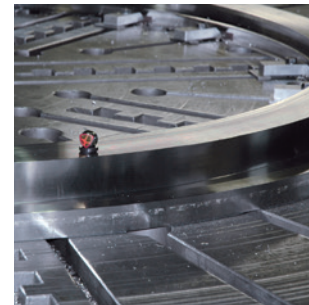


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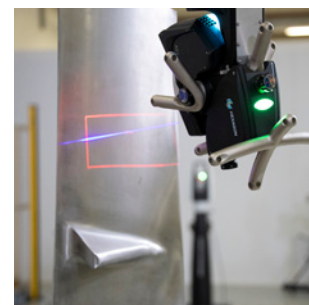
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Inspection  
Build and adjust  
Reverse engineering



Machine alignment  
Optimisation of manufacturing process







# Absolute Tracker systems

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# The Absolute Tracker

The foundation of absolute accuracy

The unmatched productivity and portability of the Absolute Tracker range is founded on innovative technologies that make it the pinnacle of high-performance metrology on the move.

## Absolute accuracy

- The Absolute Interferometer (AIFM) combines the accuracy of an absolute distance meter (ADM) with the speed of an interferometer.
- Scanning accuracy to within as little as 50 microns.
- Reflector single-point accuracy to within 20 microns.
- Patented Absolute Encoders ensure angular accuracy performance with no referencing before use .
- Systems calibrated in ISO 170250-certified laboratories for accuracy specified in line with ISO 10360-10 standard.

## Absolute productivity

- Non-contact measurement data collected at up to 1.2 million points and 300 lines per second.
- Orient-to-Gravity for levelling and alignment tasks.
- Ultra-large measurement volumes of up to 320 metres in diameter.
- Real-time architecture with dynamic performance delivers 1000 Hertz data rate.
- Hidden-point measurement with a wireless probe can reduce measurement process time by up to 80 percent.

## Absolute reliability

- Integrated MeteoStation environmental monitoring unit.
- IEC-certified IP54 sealed unit for challenging environments. Wide operating temperature range of -15 to +50 degrees Celsius.
- Integrated mini variozoom delivers a constant field of view in any light conditions.
- Full 24-month factory warranty and guaranteed ten years of serviceability

## Absolute portability

- All-in-one integrated design.
- Built-in WiFi with true access point functionality.
- Batteries compliant to IATA regulations.
- Independent hot-swappable battery power supply.
- Convenient flight cases for simple transportation.

# Our laser trackers

A tracker for every application

Laser trackers come in a range of shapes and sizes and are based on various technological foundations. These are ours, and together they represent a wider range of application solutions than is offered by any other manufacturer.

## **Leica Absolute Tracker AT960**

The flagship of the Absolute Tracker range, offering full 6DoF measuring functionality capable of powering both manual and automated inspection and production systems.

## **Leica Absolute Tracker AT930**

Our premium 3D tracker, for high-accuracy reflector measurements that can support a range of applications.

## **Leica Absolute Tracker ATS600**

The groundbreaking direct scanning laser tracker, delivering metrology-grade measurement from a distance of up to 60 metres.

## **Leica Absolute Tracker AT500**

An ultra-long-range tracker designed for measurement anywhere and best-in-class usability.



# Leica Absolute Tracker AT960

## Key features



### Overview camera

High-resolution display with live view and multiple zoom levels with no reduction in image quality



### PowerLock

Interrupted line of sight automatically re-established with no user interaction



### Multifunctionality

Compatible with:

> reflectors and Leica T-Probe for single-point measurement



> AS1 and AS1-XL scanners for non-contact measurement



> automated robotic installations



### Real-time data output

1000 Hz low-latency Ethercat data transfer with the optional Real-Time Feature Pack



### Hot-swappable battery power

Quick and easy cable-free setup in almost any location



### Orient-to-gravity function

Allows for measurement with the Z-axis aligned to gravity – ideal for levelling and alignment tasks



#### **Built-in WiFi**

For simple set up and communication with the PC and remote control operation



#### **Large volume**

Measure within a volume up to 160 metres in diameter



**IP54**

#### **IP54 protection**

IEC-certified sealed unit guarantees ingress protection against dust and other contaminants



#### **ISO certification**

System traceability certified in line with ISO 17025



#### **Real-time remote monitoring**

Compatibility with Metrology Asset Manager, the leading solution for of Industry 4.0 asset performance management



#### **GPS location service**

Possibility to track location of the Absolute Tracker anywhere in the world, even when it is switched off.

# Leica Absolute Tracker AT960



576865

## Leica Absolute Tracker AT960-SR

Short-range 6DoF laser tracker system based on Absolute Interferometer. Reflector measurement range up to 6 m, with probing range up to 5 m.

The system consists of:

- 6DoF laser tracker unit AT960-SR
- ISO 17025 Calibration Certificate based on ISO 10360-10
- MTC51 AT930/AT960/ATS600 Transport Container (576891)
- AT Controller (576871)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable - 1.5 m (576885)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor - 2 m (576888)
- Red Ring Reflector - 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty\*
- Metrology Asset Manager PRO — 12-month subscription.

576864

## Leica Absolute Tracker AT960-MR

Mid-range 6DoF laser tracker system based on Absolute Interferometer. Reflector measurement range up to 20 m, with probing range up to 10 m.

The system consists of:

- 6DoF laser tracker unit AT960-MR
- ISO 17025 Calibration Certificate based on ISO 10360-10
- MTC51 AT930/AT960/ATS600 Transport Container (576891)
- AT Controller (576871)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable - 1.5 m (576885)
- MCA134 LAN-Cable RJ-45 Cat6 - 5 m (575899)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor - 2 m (576888)
- Red Ring Reflector (RRR) - 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty\*
- Metrology Asset Manager PRO — 12-month subscription.

\*The 24-month factory warranty period is conditional on the performance of annual maintenance and recertification.

# Leica Absolute Tracker AT960

576863

## Leica Absolute Tracker AT960-LR

Long-range 6DoF laser tracker system based on Absolute Interferometer.  
Reflector measurement range up to 80 m, with probing range up to 20 m.

The system consists of:

- 6DoF laser tracker unit AT960-LR
- ISO 17025 Calibration Certificate based on ISO 10360-10
- MTC51 AT930/AT960/ATS600 Transport Container (576891)
- AT Controller (576871)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable - 1.5 m (576885)
- MCA134 LAN-Cable RJ-45 Cat6 - 5 m (575899)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor - 2 m (576888)
- Red Ring Reflector (RRR) - 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty\*
- Metrology Asset Manager PRO — 12-month subscription.

576862

## Leica Absolute Tracker AT960-XR

Extended-range 6DoF laser tracker system based on Absolute Interferometer.  
Reflector measurement range up to 80 m, with probing range up to 30 m.

The system consists of:

- 6DoF laser tracker unit AT960-XR
- Calibration Certificate Metrology Gold (827624)
- MTC51 AT930/AT960/ATS600 Transport Container (576891)
- AT Controller (576871)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable - 1.5 m (576885)
- MCA134 LAN-Cable RJ-45 Cat6 - 5 m (575899)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor - 2 m (576888)
- Red Ring Reflector (RRR) - 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty\*
- Metrology Asset Manager PRO — 12-month subscription.



# Leica Absolute Tracker AT930 | ATS600



576861

## Leica Absolute Tracker AT930

3D laser tracker system based on Absolute Interferometer. Reflector measurement range up to 80 m.

The system consists of:

- 3D laser tracker unit, AT930
- ISO 17025 Calibration Certificate based on ISO 10360-10
- MTC51 AT930/AT960/ATS600 Transport Container (576891)
- AT Controller (576871)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable - 1.5 m (576885)
- MCA134 LAN-Cable RJ-45 Cat6 - 5 m (575899)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor - 2 m (576888)
- Red Ring Reflector - 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty\*
- Metrology Asset Manager PRO — 12-month subscription.



576971

## Leica Absolute Tracker ATS600

Laser tracker system with direct scanning capability. Direct scanning distance range up to 60 m, reflector distance range up to 80 m.

The system consists of:

- Scanning laser tracker unit ATS600
- ISO 17025 Calibration Certificate based on ISO 10360-10
- MTC51 AT930/960/ATS600 Transport Container (576891)
- ATS Controller (576981)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable - 1.5 m (576885)
- MCA134 LAN-Cable RJ-45 Cat6 - 5 m (575899)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor - 2 m (576888)
- Red Ring Reflector (RRR) - 1.5" (575784)
- MAC87 Reference Sphere - d=90 mm (576947)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty\*
- Metrology Asset Manager PRO — 12-month subscription.



# Leica Absolute Tracker AT500



577440

## Leica Absolute Tracker AT500

3D laser tracker system based on Absolute Distance Meter technology.

The system consists of:

- Leica Absolute Tracker AT500 device
- MTC135 Transport Container (577446)
- MPS134 Power Supply Unit (577407)
- 2 X GEB364 Batteries (954519)
- 2 X GKL311 Charger Pro 3000 (799185)
- AT Remote Control 400 (576379)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor 2 m (576888)
- MCA134 LAN-Cable RJ-45 Cat6 (575899)
- Red-Ring Reflector (RRR) 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty\*
- Metrology Asset Manager PRO — 12-month subscription.
- ISO 17025 Calibration Certificate based on ISO 10360-10



6017710

## AT500 Probing System

Absolute Tracker AT500 laser tracker bundled with B-Probe<sup>plus</sup>.

The system consists of:

- Leica Absolute Tracker AT500 (577440)
- Leica B-Probe<sup>plus</sup> device
- 55 mm 0.5" Steel Ball Stylus (576514)
- MAP59 100mm M5 Stylus Extension (576517)
- B-Probe<sup>plus</sup> Stylus Compensation Tool (576512)
- Battery charger and 4 x AAA batteries
- Transportation case
- 24-month warranty\*

\*The 24-month factory warranty period is conditional on the performance of annual maintenance and calibration.



# Scanning solutions

Absolute Scanner AS1 Kit 20

Absolute Scanner AS1-XL Kit 21

Absolute Scanner Bundle 22

Absolute Scanner AS1 23

Absolute Scanner AS1-XL 23

# Absolute Scanner AS1 Kit | Absolute Positioner AP21 Kit



577366

## Absolute Scanner AS1 Kit

The system consists of:

- Absolute Scanner AS1 (577367), incl. ISO 17025 compliant Calibration Certificate
- Absolute Positioner AP21 (577369)
- MAP102 Grip (577370)
- AT Connect Box CB21 (577377)
- MCA110 Positioner Sensor Cable - 10 m (577379)
- MCA24 Battery Cable - 0.75 m (576876)
- MCA114 Trigger/Probe Cable - 0.75 m (855240)
- MCA115 LAN-cable RJ-45 Cat6 - 0.75 m (577384)
- MAC133 Reference Sphere - d=25.4 mm (577401)
- MAP116 Positioner Horizontal Holder (577385)
- MAP144 Positioner Clip Support (577404)
- MSI26 Universal ATC Stand Fixture (576895)
- MTC118 Absolute Scanner Trolley Case (577387)
- 24-Month Warranty\*

Compatibility: AT960



577368

## Absolute Positioner AP21 Kit

The Absolute Positioner AP21 Kit consists of:

- Absolute Positioner AP21 (577369), incl. Certificate
- MAP102 Grip (577370)
- AT Connect Box CB21 (577377)
- MCA110 Positioner Sensor Cable - 10 m (577379) or
- MCA111 Positioner Sensor Cable - 20 m (577380)
- MCA24 Battery Cable - 0.75 m (576876)
- MCA114 Trigger/Probe Cable - 0.75 m (855240)
- MCA115 LAN-cable RJ-45 Cat6 - 0.75 m (577384)
- MAP116 Positioner Horizontal Holder (577385)
- MAP144 Positioner Clip Support (577404)
- MSI26 Universal ATC Stand Fixture (576895)
- MTC118 Absolute Scanner Trolley Case (577387)
- 24-Month Warranty\*

Compatibility: AT960, AS1, AS1-XL

\*The 24-month factory warranty period is conditional on the performance of maintenance and recertification. This must be performed at your local Hexagon Service Center between the 10th and 14th month following the delivery of the system.

# Absolute Scanner AS1-XL Kit



577403

## Absolute Scanner AS1-XL Kit

The Absolute Scanner AS1-XL consists of:

- Absolute Scanner AS1-XL (577402), incl. ISO 17025 compliant Calibration Certificate
- Absolute Positioner AP21 (577369)
- MAP102 Grip (577370)
- AT Connect Box CB21 (577377)
- MCA111 Positioner Sensor Cable - 20 m (577380)
- MCA24 Battery Cable - 0.75 m (576876)
- MCA114 Trigger/Probe Cable - 0.75 m (855240)
- MCA115 LAN-cable RJ-45 Cat6 - 0.75 m (577384)
- MAC87 Reference Sphere - d-90 mm (576947)
- MAP116 Positioner Horizontal Holder (577385)
- MAP144 Positioner Clip Support (577404)
- MSI26 Universal ATC Stand Fixture (576895)
- MTC118 Absolute Scanner Trolley Case (577387)
- 24-Month Warranty\*

Compatibility: AT960

# Absolute Scanner bundle



577405

## **Absolute Scanner Bundle (AS1 and AS1-XL)**

Pair of Absolute Scanners for AT960 systems.

Bundle consists of:

- Absolute Scanner AS1 (577367), incl. Certificate
- Absolute Scanner AS1-XL (577402), incl. Certificate
- Absolute Positioner AP21 (577369)
- MAP102 Grip (577370)
- AT Connect Box CB21 (577377)
- MCA111 Positioner Sensor Cable - 20 m (577380)
- MCA24 Battery Cable - 0.75m (576876)
- MCA114 Trigger/Probe Cable - 0.75 m (855240)
- MCA115 LAN-cable RJ-45 Cat6 - 0.75 m (577384)
- MAC133 Reference Sphere - d=25.4 mm (577401)
- MAC87 Reference Sphere - d=90 mm (576947)
- MAP116 Positioner Horizontal Holder (577385)
- MAP144 Positioner Clip Support (577404)
- MSI26 Universal ATC Stand Fixture (576895)
- MTC118 Absolute Scanner Trolley Case (577387)
- 24-Month Warranty\*

Compatibility: AT960

\*The 24-month factory warranty period is conditional on the performance of maintenance and recertification. This must be performed at your local Hexagon Service Center between the 10th and 14th month following the delivery of the system.

# Absolute Scanner AS1 | Absolute Scanner AS1-XL



577367

**Absolute Scanner AS1**

The Absolute Scanner AS1 consists of:

- Absolute Scanner AS1 (577367), incl. Certificate
- 24-Month Warranty\*

Compatibility: AT960, AP21 Kit, Absolute Arm RA8 V2



577402

**Absolute Scanner AS1-XL**

The Absolute Scanner AS1-XL consists of:

- Absolute Scanner AS1-XL (577402), incl. ISO 17025 compliant Calibration Certificate
- MAC87 Reference Sphere - d=90 mm (576947)
- MAP144 Positioner Clip Support (577404)
- 24-Month Warranty\*

Compatibility: AT960, AP21 Kit, Absolute Arm RA8 V2



Felca



# Probing solutions

Leica T-Probe **26**

B-Probe<sup>Plus</sup> **26**

Styli and extensions **27**

# Leica T-Probe | B-Probe<sup>plus</sup>



576186

## Leica T-Probe III

Portable wireless probing system for AT960 systems. A light-weight measurement probe with configurable function buttons allows measurements in small and large measurement volumes with minimal preparation time. The measurement range of the T-Probe is up to 30 metres in all directions.

The system consists of:

- Wireless probing sensor T-Probe (576186) incl. certificate and transport case
- T-Probe Stylus Adaptor –M5 (576212)
- Ruby Ball Stylus d=6 mm –M5 (576221)
- 2x Stylus Tool for M5 Threaded Styli (576225)
- MAC34 T-Probe Stylus Compensation Tool (576899)
- T-Probe Battery Charger (734195)
- 2x T-Probe Spare Battery (575983)

Compatibility: AT960



577477

## Leica B-Probe<sup>plus</sup>

Entry-level portable wireless probing solution for the Absolute Tracker AT500.

The Leica B-Probe<sup>plus</sup> consists of:

- Leica B-Probe<sup>plus</sup> device
- 55 mm 0.5" Steel Ball Stylus (576514)
- MAP59 100mm M5 Stylus Extension (576517)
- B-Probe<sup>plus</sup> Stylus Compensation Tool (576512)
- Battery charger and 4 x AAA batteries
- Transportation case
- 24-month warranty\*

Compatibility: AT500, AT40x

\* The 24-month factory warranty period is conditional on the performance of annual maintenance and calibration.

# Styli and extensions



576231

## T-Probe styli kit

Recommended styli kit for Leica T-Probe

The kit consists of:

- Scribe Stylus r=0.1 mm - M2 (576219)
- Ruby Ball Stylus d=3 mm - M5 (576220)
- Ruby Ball Stylus d=6 mm - M5 (576221)
- Ceramic Hemispherical Stylus d=0.5 in, M5 (576143)
- Ceramic Hemispherical Stylus d=1.5 in, M5 (576144)
- Stylus Extension 100 mm - M5 - carbon fibre - stem d=20 mm (576213)
- Stylus Extension 200 mm - M5 - carbon fibre - stem d=20 mm (576214)
- Stylus Extension 40 mm - M5 - carbon - stem d=11 mm (576217)
- 2x T-Probe Stylus Adaptor - M5 (576212)
- 2x Stylus Tool for M2-M3 Threaded Styli (576223)
- 2x Stylus Tool for M5 Threaded Styli (576225)
- Stylus Adaptor M5-M2 (576226)
- T-Probe Styli Kit Case for Standard Configuration (576211)



576211

## T-Probe Styli Kit Case for Standard Configuration

Only case included. Accessories to be ordered separately.



576212

## T-Probe Stylus Adaptor - M5

Precision quick release adaptor for T-Probe styli to remove and attach styli without recalibration.

The stylus adaptor has built-in intelligence supporting stylus self-identification.



576213

100 mm - M5 - carbon fibre - stem d=20 mm

576214

200 mm - M5 - carbon fibre - stem d=20 mm

576215

400 mm - M5 - carbon fibre - stem d=20 mm

576216

600 mm - M5 - carbon fibre - stem d=20 mm

576217

40 mm - M5 - carbon fibre - stem d=11 mm

576218

100 mm - M5 - carbon fibre - stem d=11 mm

## Stylus Extension

# Styli and extensions



576219 **Scribe Stylus - r=0.1 mm - M2**



576220 **Ruby Ball Stylus - d=3 mm - M5**



576221 **Ruby Ball Stylus - d=6 mm - M5**



576248 **Cylindrical Stylus 22.5 mm - d=3 mm - M2**



576222 **Edge Stylus M5**  
Comes with edge sphere 0.5", magnetic stylus M5 and compensation sphere 0.5".



576223 **Stylus Tool for M2 and M3 Threaded Styli**



576224 **Stylus Tool for M4 Threaded Styli**



576225 **Stylus Tool for M5 Threaded Styli**

# Styli and extensions



576226

**Stylus Adaptor M5/M2**

An adaptor for connecting M2-threaded styli to a M5 connector.



576227

**Stylus Adaptor M5/M4**

An adaptor for connecting M4-threaded styli to a M5 connector.



576228

**Stylus Adaptor M4/M5**

An adaptor for connecting M5-threaded styli to a M4 connector.



576143

**Ceramic Hemispherical**

Compatibility: AT960

576144

Stylus d=0.5" - M5

Stylus d=1.5" - M5



576403

**Punch Tool - M5**

A stylus used for punching scribe lines on an object for the next manufacturing process.



576408

**Punch Tool Replacement Tip**

Replacement Tip for Punch Tool - M5 (576403).



577356

**Adapter for T-Probe**

90-degree adaptor with M5f/M5m thread. Compatible with all M5 stylus and CFK extensions. Used for 90-degree stylus configurations with Leica T-Probe.



576514

**Steel Ball Stylus**

M5 d=0.5" - L=55 mm



HEXAGON

AS1

# Automation solutions

Leica T-Mac **32**

Accessories **34**

# Leica T-Mac



576400

## T-Mac Basic TMC30-B

T-Mac is a specific developed sensor using Hexagon's 6DoF technology to extend product offering. T-Mac is designed to be used in combination with robots and large machines especially for positioning with high accuracy. T-Mac has the possibility to mount it on a robot or machine and the housing already has 4 reflector nests included. These reflector positions can be used to establish a local coordinate system for object orientation or robot alignment. As an option a tool exchange interface from Sandvick can be adapted.

The system consists of:

- T-Mac basic TMC30-B (576400) including certificate and transportation case
- T-Probe cable - 20 m (575973)



576410

## T-Mac Inspect TMC30-I

The T-Mac is a 6DoF machine control probe for use with the Absolute Tracker AT900 series trackers and T-Cam's. The TMC30-I is the deluxe version of the probe for machine positioning, alignment, calibration and all inspection tasks (such as touch trigger).

The system consists of:

- T-Mac Inspect TMC30-I (576410) including certificate and transportation case
- T-Probe cable, 20 m (575973)

Note: The T-Mac Inspect cable must be ordered separately (10 m - 576509, 30 m - 576510).

Compatibility: AT930, AT960

576404

## T-Mac Update Kit Basic to Inspect

This Kit allows older T-Mac's to be upgraded in order to be used in new inspection systems.

The Upgrade Kit only contains the internal hardware to convert a TMC30 to a TMC30-I, no additional cables or interfaces are included.

Please contact service to make sure that the existing T-Mac is capable of receiving this upgrade.

Note: T-Mac Inspect cable must be ordered separately.

Compatibility: AT930, AT960



576396

## Leica T-Mac Multiface TMC30-M

The T-Mac Multiface is a 6DoF machine control probe for use with any 6 DoF laser tracker. The TMC30-M is the multiface version of the TMC30-I for machine positioning, alignment, calibration and all inspection tasks (such as touch trigger measurement).

The system consists of:

- TMC30-M sensor, including certificate and transportation case
- Leica T-Probe cable - 20 m (575973)

Note: T-Mac Inspect cable (576509, 576510) must be ordered separately.

Compatibility: AT960



# Leica T-Mac



576398

## T-Mac Frame TMC30-F

The T-Mac Frame TMC30-F is a configurable 6DoF machine control probe for use with any Hexagon 6 DoF laser tracker. The TMC30-F can be used to create customised multisided probe configurations with anywhere from 1 to 4 frames (faces). The T-Mac Frame TMC30-F can be used to extend angular measuring range of the T-Mac Frame TMC30-F Starter Kit (576397) or an existing T-Mac Basic TMC30-B (576400) or T-Mac Inspect TMC30-I (576410). For TMC30-B or TMC30-I the Frame extension interface for T-Mac (5003434) is needed (orderable from Laser Tracker Service Unterentfelden, Switzerland, please contact [ps.ch@hexagonmetrology.com](mailto:ps.ch@hexagonmetrology.com)).

The system consists of:

- T-Mac Frame TMC30-F (576398) incl. certificate and cardboard transportation box
- Connection Cable T-Mac/CPU Box, 0.6 m or 1.8 m (804823, 804824)

*Note:* The T-Mac Frame TMC30-F does NOT include a mount for touch trigger inspection device. Please refer to 576395 Upgrade TMC30-F to Inspect.

Compatibility: AT930, AT960



576397

## T-Mac Frame TMC30-F Starter Kit

The T-Mac Frame TMC30-F Starter Kit is a configurable 6DoF machine control probe for use with any Hexagon 6 DoF Laser tracker. The T-Mac TMC30-F Starter Kit can be used to create customised multisided probe configurations with anywhere from 1 to 4 frames (faces). To the T-Mac Frame TMC30-F Starter Kit up to 3 additional T-Mac Frames TMC30-F (576398) can be connected in addition.

The system Kit consists of:

- T-Mac Frame TMC30-F (576398) incl. certificate and cardboard transportation box
- CPU Box for TMC30-F (805143)
- T-Probe Cable, 20 m (575973)
- Connection Cable T-Mac/CPU Box, 0.6 m or 1.8 m (804823, 804824).

Compatibility: AT930, AT960



875900

## Automation Frame T-Probe III

The Automation Frame T-Probe consists of:

- Leica T-Probe III (576186)
- Automation Frame

The Automation Frame is factory fitted on the T-Probe III. The Automation Frame enables wireless 6DoF use cases involving fixing the T-Probe III on a robot.

# Accessories for automation solutions



576406

## Automation Interface Controller

The Automation Interface Controller provides handling capabilities of up to four laser trackers and multiple measurement devices such as T-Mac, or external trigger source. Its digital I/O interface allows for bidirectional communication to a robotic or machine controller.

Includes: Product CD, power cable and 5 m LAN cable (575899).

Compatibility: AT930, AT960



576964

## Automation Switch Controller MAA99

The Automation Switch Controller (ASC) is a device for automatically switching the probe and probe/trigger cable from one tracker to another and/or from one target to another. The ASC provides four pairs of probe and probe/ trigger sockets for laser tracker connections and four pairs of probe and probe/trigger sockets for target (probe) connections. The ASC is a device that enables the use of multiple laser trackers and accessories in any combination, for example a Leica T-Mac could be connected to different laser trackers to optimise accessibility.

Compatibility: AT960



576872

## RTFP-EC Real Time Feature Pack - EtherCAT

The Real Time Feature Pack (RTFP) for AT930/960 Absolute Tracker (AT Controller) is designed to provide cyclic measurement data in real-time over the EtherCAT industrial fieldbus protocol. The RTFP acts as a slave in the external automation bus system.

*Note:* The RTFP can be fitted in the factory or service Unterentfelden only.

Compatibility: AT930, AT960



577373

## Interface Adaptor AP21 - MAA105

Consisting of:

- Interface Adaptor AP21 - MAA105 (577373)
- Torque wrench 2.0 Nm (928792)
- Screw Set 8 x M4 x 14 12.9 ISO 4762
- Autom. Adaptor Instruction Sheet-EN - MAA146 (939299)

Compatibility: AT960, AS1

# Accessories for automation solutions



577374

**Straight Adapter - 139 mm - MAA106**

Consisting of:

- Straight Adaptor - 139 mm - MAA106 (577374)
- Autom. Adaptor Instruction Sheet-EN - MAA146 (939299)

Compatibility: AT960, AS1



577375

**45° Adaptor - 67 mm - MAA107**

Consisting of:

- 45° Adaptor - 67 mm - MAA107 (577375)
- Screw Set 3 x M4 x 25 ISO 4762
- Autom. Adaptor Instruction Sheet-EN - MAA146 (939299)

Compatibility: AT960, AS1



577376

**ToolChanger/Robot Flange - MAA108**

Consisting of:

- MAA108 ToolChanger/Robot Flange (577376)
- Screw Set 8 x M4 x 10 ISO 4762
- Autom. Adaptor Instruction Sheet-EN - MAA146 (939299)

Compatibility: AT960, AS1



577411

**Automation WRTL single unit - MAA142**

The Automation WRTL (Wireless Real Time Link 2.4GHz) kit enables wireless scanning applications by transmitting trigger signals and probe data between the Leica Absolute Tracker AT960 and the Absolute Scanner AS1. The WRTL device connects on one side to the laser tracker AT Controller and on the other side to the laser scanner's AT Connect Box CB21.

For a wireless automation configuration, 2 MAA142 Autom. WRTL devices and 2 MCA114 Trigger/Probe Cables (855240) are required. The second MMA142 and the cables must be ordered separately.

Compatibility: AT960, AS1, AS1-XL



577412

**Automation WRTL kit - MAA142**

The kit consists of:

- 2x MAA142 Autom. WRTL (577411)
- 2x MCA114 Trigger/Probe Cable - 0.75m (855240)

Compatibility: AT960, AS1, AS1-XL

# Accessories for automation solutions



577406

## **Extension Interface Adaptor AP21 - MAA146**

For scanning hidden areas with an externally mounted Absolute Scanner AS1. The Extension Interface Adaptor is used in conjunction with an Absolute Scanner AS1, Absolute Positioner AP21 and Automation Scanning Extensions - parts to be ordered separately.

Consisting of:

- MAA146 Extension Interface Adaptor AP21
- Screw Set 16 x M4 x 14 12.9 ISO 4762
- Screwdriver with torque adaptor (2 Nm)
- Mini ratchet wrench
- Bit with ball end for Hexagon SW3mm
- MAA146 Mounting Instruction Sheet-EN

Compatibility: AT960



577408

## **Automation Scanning Extension - 200 mm - MAA154**

For scanning hidden areas with an externally mounted Absolute Scanner AS1. The extension is used in conjunction with an Absolute Scanner AS1, Absolute Positioner AP21 and MAA146 Extension Interface Adapter AP21 - parts to be ordered separately.

Consisting of:

- Automation Scanning Extension - 200 mm - MAA154
- Mounting Instruction Sheet-EN - MAA146

Compatibility: AT960

## Accessories for automation solutions



577409

**Automation Scanning Extension - 500 mm - MAA155**

For scanning hidden areas with an externally mounted Absolute Scanner AS1. The extension is used in conjunction with an Absolute Scanner AS1, Absolute Positioner AP21 and MAA146 Extension Interface Adapter AP21 - parts to be ordered separately.

Consisting of:

- Automation Scanning Extension - 500 mm - MAA155
- Mounting Instruction Sheet-EN - MAA146

Compatibility: AT960



577410

**Automation Scanning Extension - 800 mm - MAA156**

For scanning hidden areas with an externally mounted Absolute Scanner AS1. The extension is used in conjunction with an Absolute Scanner AS1, Absolute Positioner AP21 and MAA146 Extension Interface Adapter AP21 - parts to be ordered separately.

Consisting of:

- Automation Scanning Extension - 800 mm
- Automation Adaptor Instruction Sheet-EN - MAA146 (939299)

Compatibility: AT960

# Accessories for automation solutions



577378

## Top Hat Rail Adaptor - MAA109

Adaptor can carry the following articles:

- AT Connect Box CB21 (577377)
- AT Controller (576871)
- MPB25 Battery (576875), MPB100 Battery (576965)
- MAS71 Power Supply Unit Fixture (576920)

Adaptor is compatible with the following top hat rails:

- IEC/EN 60715 – 35 × 7.5 and IEC/EN 60715 – 35 × 15

Compatibility: AT960, AS1



577388

577389

577390

## Automation GigE-Data Cable

Cable for connecting the Automation Signal Splitter GigE/Probe (577396) to a robot adaptor and tool changer. The cable is equipped with M12 x-coded male plugs. To extend the cable length a MCA128 Automation M12 Gender Changer - F (577397) is required (to be ordered separately). The maximum supported cable length is 80 m with up to maximum 6 plug connections. The cable has a length of 10 m and is green.

MCA119 - 10 m

MCA120 - 30 m

MCA121 - 50 m

Compatibility: AT960, AS1



577391

577392

577393

## Automation Probe-Data Cable

Cable for connecting the Automation Signal Splitter GigE/Probe (577396) to a robot adaptor and tool changer. The cable is equipped with M12 x-coded male plugs. To extend the cable length a MCA128 Automation M12 Gender Changer - F (577397) is required (to be ordered separately). The maximum supported cable length is 80 m with up to maximum 6 plug connections. The cable is black.

MCA122 - 10 m

MCA123 - 30 m

MCA124 - 50 m

Compatibility: AT960, AS1

## Accessories for automation solutions



577394

### Automation GigE-Data Cable MCA125 - 0.5 m

Cable for connecting the tool changer (robot side) and the robot adaptor (577371, 577372). The cable is equipped with M12 x-coded male plugs. The cable has a length of 0.5 m and is green.

Compatibility: AT960, AS1



577395

### Automation Probe-Data Cable MCA126 - 0.5 m

Cable for connecting the tool changer (robot side) and the robot adaptor (577371, 577372). The cable is equipped with M12 x-coded male plugs. The cable has a length of 0.5 m and is black.

Compatibility: AT960, AS1



577397

### Automation M12 Gender Changer MCA128 - F

Gender Changer connects any of the Automation GigE- or Probe-Data Cables (577388-577395). It's used to extend the cable configuration. The two Automation M12 Gender Changer - F have M12 x-coded female sockets and are delivered with a wall bracket.

Compatibility: AT960, AS1

577398  
577399

### Automation Robot I/O Cable

Cable for connecting the AT Connect Box CB21 (577377) with the robot or NC machine controller. The cable has a Lemo Type B plug (CB21 side) and 19 open wires - labelled (robotic side).

MCA129 - 20 m

MCA130 - 50 m

Compatibility: AT960, AS1

The automation accessories shown in this catalogue are only a selection of the larger range of solutions offered. For detailed system configurations (e.g. machine adaptors, cables, etc.), please contact your local commercial operation or system integrator.

# Accessories for automation solutions



576196

## **Automation Sensor Cable MCA44 - 10 m**

The MCA44 Automation Sensor Cable 10 m connecting the T-Mac Inspect (22pin T-Scan ODU-female connector) to the Automation Interface Controller (576406) or to the Automation Multiplex Box (576407).

Compatibility: AT960, T-Mac



576509

10 m

576510

30 m

## **T-Mac Inspect TMC30-I Cable**

For connecting the TMC30-I to the Automation Interface Controller 576406 or MUX box 576407 directly.

## **Automation Robot Cable**

For Connecting the Automation Interface Controller 576406 to the Robotic or NC Machine controller.

576505

20 m

576506

50 m



## Accessories for automation solutions



576878

### Automation Trigger/Probe Y-Cable MCA48

The MCA48 connecting the AT960 Tracker Controller with the Automation Interface Controller (576406). The y-ends of the cable must be extended with the standard T-Probe Cable (575972, 575973, 576185) and Trigger Cable (576507, 576508) to be ordered separately.

### Automation Interface Cable

connecting the Automation Interface Controller (576406) to the Automation Multiplex Box (576407).

576929

MCA77 - 30 m

576879

MCA49 - 50 m

576931

### T-Mac cable MCA78 - 1.0 m

with ODU connector (male sensor side)



577396

### Autom. Signal Splitter GigE/Probe MCA127

Cable junction for separating GigE and probe data. The splitter is equipped with M12 x-coded female sockets. The sockets are colour coded green/black for GigE/Probe cables. The splitter plugs into the scanner socket of the AT Connect Box CB21 (577377).

Compatibility: AT960, AS1



# Mounting solutions

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# Tracker mounting solutions



6009768

## Stand Set MST27

Set consists of

- Stand Tube Extension MST27 (576881)
- Absolute Tracker Stand (575997)

Compatibility: AT930, AT960, ATS600, AT500



576881

## Stand Tube Extension MST27

Designed for AT930/960 or ATS600 systems. Fits on the Absolute Tracker Stand (575997) (to be ordered separately).

Compatibility: AT930, AT960, ATS600, AT500



575997

## Absolute Tracker Stand

Equipped with three levelling screws and shock absorbing wheels.

Compatibility: AT930, AT960, ATS600, AT500

# Tracker mounting solutions



576901

## Portable Metrology Tripod (Carbon) MST36

Collapsible tripod with carbon legs designed for Absolute Tracker and Absolute Arms.

Tripod consists of:

- Integrated bulls eye level and 1 kit of pad feet
- Instrument adaptor for AT930/960 or Absolute Arm (3.5"x8 thread) and for AT40x (5/8" thread)
- 3 integrated fixture positions for AT Controllers (576871, 576368) or MPB25, battery external Li-Ion 37V/8.1Ah (576875)

Adjustable height: 83 - 118 cm. | Weight: 14.2 kg

Compatibility: AT500, AT930, AT960, ATS600



576919

## Tripod Levelling Kit MAS70

Used on MST36 Tripod (576901) to establish a gravity-based coordinate system when measurements require a 3D device. Installation requires a simple hand adjustment to insert the levelling screw above the point or pad foot on each leg. The compact design adds only 17 mm of leg length in the retracted position while providing a large 19 mm precision adjustment range. A knurled sleeve provides the delicate touch needed to set level, eliminating any awkward locking mechanisms to disturb the instrument orientation. The all metal construction assures dependable operation in any measurement environment. Sold in sets of 3. Weight : 0.3 kg each

*Note:* Wheel Assembly Kit (576904) will not operate with the Tripod Levelling Kit installed.



576905

## Tripod Transportation Kit MAS53

When shipping or packing requirements call for more protection, the MAS53 Tripod Transportation Kit nests the MST36 Portable Metrology Tripod (576901) and MAS54, Tripod Padded Bag (576906) into an ATA rated travel case for easy and safe transportation. This black injection molded plastic case has tilt wheels with a tow handle for easy pull-behind transport. A padlockable watertight lid is included for added security. Dimensions (outside) : 114.5 cm x 40.6 cm x 33.0 cm. Weight (empty) : 5.9 kg.

Compatibility: AT500, AT930, AT960, ATS600



576906

## Tripod Padded Bag MAS54

Add a durable black carrying bag for easy transport to and from the jobsite. This rugged nylon bag has padded sides and a structured bottom to protect the stand and accessories. Three convenient carrying options include handles, a shoulder strap, and built-in wheels with a tow handle. The wide mouth, double zippered opening makes for easy packing and unpacking.

Dimensions: 101.6 cm x 30.5 cm x 30.5 cm.

# Tracker mounting solutions



577420

## Portable Precision Carbon Tripod MST138

Ideal lightweight carbon tripod for AT930/960, AT500, ATS600 and Absolute Arms. Use 5/8" Instrument Adapter (577422) for TM6100A theodolite.

The system has the following features:

- Foldable tripod with carbon legs
- Height scale on center leg
- 3 integrated fixed positions for AT Controller/ATS Controller or external batteries MPB25/MPB100
- Thread: 3.5x8"
- Min. height: 79 cm
- Max. height: 131 cm
- Weight: 14.5 kg
- Max. load: 100 kg

Compatibility: AT500, AT930, AT960, ATS600, TM6100A (with MSI140 adaptor)



577421

## Portable Precision Aluminium Tripod MST139

Ideal aluminium tripod for with AT930/960, AT500, ATS600 and Absolute Arms. Use 5/8" Instrument Adapter (577422) for TM6100A theodolite.

The system has the following features:

- Foldable tripod with carbon legs
- Height scale on center leg
- 3 integrated fixed positions for AT Controller/ATS Controller or external batteries MPB25/MPB100
- Thread: 3.5x8"
- Min. height: 79 cm
- Max. height: 131 cm
- Weight: 15.5 kg
- Max. load: 100 kg

Compatibility: AT500, AT930, AT960, ATS600, TM6100A (with MSI140 adaptor)



577423

## Tripod Transportation Case MAS141

Lockable shipping and storage container with padded foam inlay for MAS145 and MST138/139 tripods.

- Dimensions: 41 x 33 x 98 cm
- Empty weight: 9.5 kg
- Foam inlay included

Compatibility: AT930, AT960, ATS600, AT500

# Tracker mounting solutions

577424

## Height Extension 750 mm for Tripod MAS145

The MAS145 height extension can be used with MST139/139 tripods for working heights of up to 2.4 m or to MST27 Tracker Stand.  
The MAS145 height extension fits to any tripod or stand with a 3.5x8" thread.  
-Weight: 5.9 kg

Compatibility: AT930, AT960, AT500, ATS600

576920

## Power Supply Unit Fixture MAS71

Fixture to hold a power supply unit by attaching to the stand, keeping the power supply off the ground. Holds the following power supply units:  
- MPS21 Power Supply Unit (576873)  
- AC/DC Adapter 15V (773058)

Attaches to following stands/fixtures: MST27 Stand Tube Extension (576881), MST36 Portable Metrology Tripod Carbon (576901), MSI26 Universal ATC Stand Fixture (576895)



576895

## Universal ATC Stand Fixture MSI26

Universal stand fixture for AT Controller with reusable Velcro strap (0.52 m).  
Compatible with AT Controller (576871, 576368), ATS Controller (576981), MPB25, Battery external Li-Ion 37V/8.1Ah (576875)



576952

## Levelling Unit MAL93

Used to support the fine levelling process for the Orient-to-Gravity setup. Equipped with two fine-adjust elements (90°-oriented) to adjust the laser tracker's inclination. The MAL93 can be mounted on any compatible instrument stand with a 3.5"x8" thread. The AT Quick Release Mount (576338) is attached to the upper MAL93 interface to fix the laser tracker in place.

Compatibility: AT500, AT930, AT960, ATS600  
(reduced motor servo control loop parameters are required)



576338

## AT Quick Release Mount

For mounting an AT9x0 or AT901 system on the AT Stand Extension (576337), AT Mounting Plate (576336) or any other compatible instrument stand with 3.5"x8" thread adaptor.



# Tracker mounting solutions



576349

## Aluminium Tripod AT08

Light-weight tripod with 3.5"x8 thread for easy demos, increased portability and reduction of total system weight. Suitable for all Absolute Tracker systems and Absolute Arm systems up to 3.5 m length.

The tripod interface is compatible with the AT Quick Release Mount (576338).

Tripod height (working position): 815 mm (fixed)

Dimensions: 25 x 25 x 100 cm (folded) | Weight: 12 kg

Compatibility: AT500, AT930, AT960



577425

## Instrument Adaptor MS1157 3.5"

The MS1157 adaptor converts the 5/8"-11 thread into a 3.5x8" external thread.

The MS1157 adaptor fits on any tripod or stand with a 5/8"-11 thread.

Compatibility: ATS600, AT500



577422

## Instrument Adaptor MS1140 5/8"

The MS1140 adaptor converts the 3.5x8" thread into a 5/8"-11 external thread for mounting an Absolute Tracker AT403 or Theodolite. The MS1140 adaptor fits on any tripod or stand with a 3.5x8" thread.

Compatibility: TM6100A



# Tracker mounting solutions



577351

### AT Base Plate Type A

Base plate with non-adjustable pointed-tip feet for AT500, AT930/AT960 and ATS600 sensor series. Includes 3.5"x8 thread for Quick Release. Quick Release is not included. All stainless-steel finish.

Plate height: approx. 40 mm | Weight: 9 kg.

Note: For sensors with 5/8" treads use Adaptor MIS140 (577422) (not included)

Compatibility: AT500, AT930, AT960, ATS600



577352

### AT Base Plate Type B

Base plate with adjustable machine feet for levelling for AT500, AT930/960 and ATS600 sensor series. Includes 3.5"x8 thread for Quick Release. Quick Release is not included. Type B is delivered with non-slip rubber-type machine feet.

All stainless-steel finish.

Plate height: approx. 60 mm | Weight: 10 kg.

Note: For sensors with 5/8" treads use Adapter MIS140 (577422) (not included)

Compatibility: AT500, AT930, AT960, ATS600



577353

### AT Base Plate Type C

Base plate with adjustable machine feet for levelling for AT500, AT930/AT960 and ATS600 sensor series. Includes 3.5"x8 thread for Quick Release. Quick Release is not included. Type C is delivered with stainless-steel type machine feet.

All stainless-steel finish.

Plate height: approx. 60 mm | Weight: 10 kg.

Compatibility: AT500, AT930, AT960, ATS600



577354

### AT Base Plate Type D

Base plate with adjustable machine feet for levelling for AT500, AT930/AT960 and ATS600 systems. Includes 3.5"x8 thread for Quick Release. Quick Release is not included. Type D is delivered with pointed-tip feet. All stainless-steel finish.

Plate height: approx. 60 mm | Weight: 9.5 kg.

Note: For sensors with 5/8" treads use Adapter MIS140 (577422) (not included)

Compatibility: AT500, AT930, AT960, ATS600



577355

### Pointed Screw Kit for AT Base Plates - 80 mm

Conversion kit with pointed-tip feet for Base Plate Types B and C. Stainless steel.

Compatibility: AT930, AT960, ATS600, AT500

# Tracker mounting solutions



576336

## AT Mounting Plate

Allows for mounting Absolute Tracker systems onto machine beds. Does not include AT Quick Release Mount (576338).

Compatibility: AT500, AT930, AT960, ATS600



576339

## AT Magnetic Mount

Allows for mounting Absolute Tracker systems onto a magnetic surface. Does not include AT Quick Release Mount (576338) and AT Mounting Plate (576336).

Compatibility: AT500, AT930, AT960, ATS600



576897

## Rack Fixture MAA32 ATC 19"

Designed to hold the AT Controller of the AT930/960 series, ATS Controller of the ATS600 in standard 19"-rack systems and MPB batteries.

Compatibility: AT930, AT960, ATS600



576940

## Wall Mount Fixture 0°/180° MAS80

Fixture for upright or inverted adaptation of Absolute Tracker systems onto concrete walls or structures. Adaptation of Leica Quick Release for AT930/960, ATS600, or AT500, or 5/8" thread for AT40x sensors. Integrated safety lever for Quick Release handle.

Fixture contents:

- Installation instructions
- MAS80 Wall Mount
- Set of screws for adaptation of Quick Release and washers and heavy duty anchors for concrete walls
- Set of cable ties for sensor cables
- 5/8" threaded bolt for AT40x sensors

Compatibility: AT500, AT930, AT960, ATS600



576941

## Wall Mount Fixture 35° MAS81

Fixture for inclined installation of AT930/960/ATS600 sensors onto concrete walls or structures. Adaptation of Leica Quick Release for AT930/960/ATS600 systems. Integrated safety lever for Quick Release handle.

Fixture Content:

- Installation instructions
- MAS81 Wall Mount
- Set of screws for adaptation of Quick Release, washers and heavy duty anchors for concrete walls
- Set of cable ties for sensor cables

Compatibility: AT500, AT930, AT960, ATS600

# Scanner holders



577385

**Horizontal Positioner Holder MAP116**

Horizontal Positioner holds the Absolute Positioner AP21 with its sensor attached in a safety position.

Compatibility: AT960, AS1



577404

**Positioner Clip Support MAP144**

Positioner Clip clips to the MAP102 Grip and holds the Absolute Positioner AP21 with its sensor attached in a temporary position.

Compatibility: AT960, AS1, AS1-XL



577370

**Grip MAP102**

MAP102 Grip mounts onto the Absolute Positioner AP21.

Compatibility: AT960, AP21



# Reflectors and holders

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# Reflectors

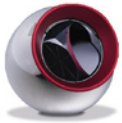


575784

## **Red Ring Reflector (RRR) - 1.5"**

Stainless steel, surface-hardened, magnetic corner-cube reflector with removable ring, protective cover for optics and certificate. Delivered in wooden box.

Compatibility: AT500, AT930, AT960, ATS600



576311

## **Red Ring Reflector (RRR) - 7/8"**

Stainless steel, hardened, magnetic corner-cube reflector with removable ring, protective cover for optics and certificate. Delivered in wooden box.

Compatibility: AT500, AT930, AT960, ATS600



575739

## **Red Ring Reflector (RRR) - 0.5"**

Stainless steel, surface-hardened, magnetic, corner-cube reflector with removable ring, protective cover for optics and certificate. Delivered in wooden box.

Compatibility: AT500, AT930, AT960, ATS600



576244

## **Break Resistant Reflector (BRR) - 1.5"**

Stainless steel, surface-hardened, magnetic reflector with collar protection cover for optics and certificate. Delivered in wooden box.

Compatibility: AT500, AT930, AT960, ATS600

Specifications and packs availability page 58.

# Reflectors



576234

### Tooling Ball Reflector (TBR) - 0.5"

Stainless steel, surface-hardened, magnetic, glass prism reflector with removable ring, protection cover for optics and certificate. Delivered in a wooden box.

Compatibility: AT500, AT930, AT960



575848

### Reflectors for Fixed Installation (RFI) - 0.5", 5-pack.

Pack of 5 anodized aluminium, non-magnetic glass prism reflectors in a wooden box.

Compatibility: AT500, AT930, AT960, ATS600



576962

### Super CatEye Reflector (SCE)

Stainless steel, surface-hardened, magnetic reflector with ultra-wide acceptance angle of  $\pm 75^\circ$  from vertical around a full 360-degree field of view. Includes reflector with optical protection cover, certificate and product storage box.

Compatibility: AT930, AT960



576966

### Super Cateye Reference Target (SCRT)

Aluminium with samarium-cobalt magnet reflector with ultra-wide acceptance angle of  $\pm 75^\circ$  from vertical around a full 360-degree field of view, embedded in a magnetic target base with magnetic shielding for transportation and storage. Mechanical adaptation of the SCRT can be established using the 6 mm M4 centre bore hole.

Note: A valid Super CatEye Reflector 1.5" (576962) compensation is required for the corresponding Absolute Tracker system prior to the use of an SCRT (576966).

Compatibility: AT930, AT960



573510

### Cateye Reflector (CER) - ball with hardened steel surface

Radius ball: 37.5 mm  $\pm 0.025$  mm

Roudness (ball)  $\pm 0.01$  mm

Centring of optics  $\pm 0.01$  mm

Max. acceptance angle  $\pm 60^\circ$

Weight 730 g

Compatibility: AT930, AT960, ATS600, AT500

# Reflectors

	Reference	Quantity	Radius	Centring of optics	Roundness (ball)	Acceptance angle	Weight	Compatibility		
<b>Red Ring Reflector (RRR) - 1.5"</b>	575784 576241 576242 576243	1 pc. 2 pcs. 5 pcs. 10 pcs.	19.05 mm $\pm 0.0025$ mm	$< \pm 0.003$ mm	$\leq 0.003$ mm	$\pm 30^\circ$	170 g	AT500	ATS600	AT930/ AT960
<b>Red Ring Reflector (RRR) - 7/8"</b>	576311 576312 576313 576314	1 pc. 2 pcs. 5 pcs. 10 pcs.	11.125 mm $\pm 0.0025$ mm	$< \pm 0.003$ mm	$\leq 0.003$ mm	$\pm 30^\circ$	35 g	AT500	ATS600	AT930/ AT960
<b>Red Ring Reflector (RRR) - 0.5"</b>	575739 576238 576239 576240	1 pc. 2 pcs. 5 pcs. 10 pcs.	6.35 mm $\pm 0.0025$ mm	$< \pm 0.003$ mm	$\leq 0.003$ mm	$\pm 30^\circ$	6 g	AT500	ATS600	AT930/ AT960
<b>Break Resistant Reflector (BRR) - 1.5"</b>	576244	1 pc.	19.05 mm $\pm 0.0025$ mm	$< \pm 0.010$ mm	$< \pm 0.0015$ mm	$\pm 30^\circ$	195 g	AT500	ATS600	AT930/ AT960
<b>Tooling Ball Reflector (TBR) - 0.5"</b>	576234 576235 576236	1 pc. 5 pcs. 10 pcs.	6.35mm: $\pm 0.004$ mm	$< \pm 0.01$ mm	$< \pm 0.003$ mm	w/ ring $\leq \pm 22^\circ$ w/out ring $\leq \pm 50^\circ$	7 g	AT500		AT930/ AT960
<b>Reflectors for Fixed Installation (RFI) - 0.5"</b>	575848 576246	5 pcs. 10 pcs.	6.35 mm	not applicable	not applicable	$\leq \pm 50^\circ$	3 g	AT500	ATS600	AT930/ AT960
<b>Super CatEye Reflector (SCE)</b>	576962	1 pc.	19.05 mm $\pm 0.0025$ mm	$< \pm 0.005$ mm	$\leq 0.003$ mm	$\pm 75^\circ$	106 g	-	-	AT930/ AT960
<b>Super Cateye Reference Target (SCRT)</b>	576966	1 pc.	-	not applicable	not applicable	$\pm 75^\circ$	84 g	-	-	AT930/ AT960
<b>Cateye Reflector (CER)</b>	573510	1 pc.	37.5 mm $\pm 0.025$ mm	$\pm 0.01$ mm	$\pm 0.01$ mm	$\pm 60^\circ$	730 g	AT500	ATS600	AT930/ AT960
<b>Mini prism</b>	641762	1 pc.	-	-	-	-	-	-	ATS600	AT930/ AT960



## Reflectors



575847

### Surface Reflector Kit

Kit includes:

- Surface reflector with lanyard
- Pin-Point Stylus (603182)
- 3 mm Ruby-Ball Stylus (603193)
- Edge Stylus (603188/575423)
- Manual (724251)

Compatibility: AT500, AT930, AT960, ATS600



641762

### Mini prism GMP104

with L-bar, for fixed installations.

Compatibility: AT930, AT960, ATS600



641662

### Mini prism set GMP101

includes bubble, target plate and spike, in bag, also suitable for GLS11 and GRT44 (same height as GPH1, additive constant +17.5 mm).

Compatibility: TDRA6000

# Reflector holders



576249

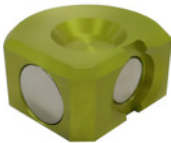
## Pass Point Target Kit MAT22

Kit includes:

- 8 non-magnetic target base to be affixed with hot glue.
- 5 neodymium magnetic target base with magnetic shield for transportation and storage.

Delivered in case with spare cutout for CCR 1.5" reflector (not included), dimensions 250x200x70 mm, weight with targets 1.1 kg.

Compatibility: AT500, AT930, AT960, ATS600



576850

## Magnetic NORS Reflector Support for 1.5" Reflectors (RRR/BRR)

Magnetic support designed for holding larger reflectors in place.

Compatibility: AT500, AT930, AT960, ATS600



575940

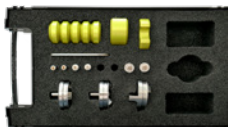
## Roller Alignment Kit

Kit for performing roller alignments with laser tracker and TPS systems.

The kit is delivered in a dedicated hard case and comprises:

- 2 floor base plates
- 2 centering pins with magnetic adaptor for 1.5" target
- 1 roller adaptor
- 1 magnetic adaptor for 1.5" target

Compatibility: AT500, AT930, AT960, ATS600



577426

## Reflector Support Starter Kit MAT158

The Starter Kit includes:

- 5 Drift nests that can be temporarily fixed with any general adhesive.
- 1 NORS Reflector Support for 1.5" reflectors.
- 1 3PRS 3-Point Reflector Support.
- 1 Adaptor with shank and magnetic base for 1.5" reflectors. ( $\varnothing 40 \pm 0.02$  mm, offset  $30 \pm 0.02$  mm, centring  $<0.025$  mm).
- 1 Adaptor with shank and non-magnetic base for 1.5" reflectors ( $\varnothing 40 \pm 0.02$  mm, offset  $30 \pm 0.02$  mm, centring  $<0.025$  mm).
- 1 Edge adaptor for 1.5" reflectors ( $\varnothing 40 \pm 0.02$  mm, offset  $30 \pm 0.02$  mm, centring  $<0.025$  mm).
- Insert bolts of 6, 8, 10 and 12 mm diameters ( $\pm 0.01$  mm) for the adaptors with shank (2 of each diameter are included in the case).
- 1 Wrench tool for the insert bolts.
- The Reflector Support Starter Kit is delivered in a compact case with foam inlays for all adaptors and extra space for additional reflector supports or accessories.

Compatibility: AT930, AT960, ATS600, AT500

## Reflector holders



577357

### Adaptor for inner diameters AID15 with adjustable magnetic base

Supports 1.5" reflectors only. For diameters 200 mm and larger. M8 thread for adaptation of CFK Extension Rod 650 mm.

Compatibility: AT500, AT930, AT960, ATS600



577339

### Adaptor for inner diameters AID78 with adjustable magnetic base

Supports 7/8" reflectors only. For diameters 100 mm and larger. M8 thread for adaptation of CFK Extension Rod 650 mm.

Compatibility: AT500, AT930, AT960, ATS600

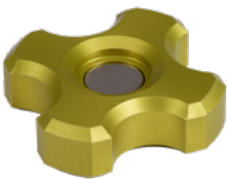


577360

### CFK Extension Rod

CFK rod extension, 650 mm with M8 m/f thread for adapters AID15/78. Maximum number of recommended segments 3 x 650 mm.

Compatibility: AT500, AT930, AT960, ATS600



577362

### 3-Point Reflector Support (3PRS)

Special accessory with three-point support when probing with a 1.5 in reflector. The 3PRS reflector support will immediately stabilise the reflector position during a measurement process. Lower point RMS and maximum accuracy can be achieved compared to conventional 'hand-held' reflector measurements.

Compatibility: AT500, AT930, AT960, ATS600

# Reflector holders



577427

## Heavy Duty 1.5" Reflector Support MAT159

Reflector support equipped with 3 strong magnets for 1.5" reflectors. The strong magnets securing the reflector in place make it ideal for mounting on robot arms or on machinery. Comes with an 8 mm F7 centre-bore adaptation and a bore-hole pattern of 3 x M4 ( $\varnothing$  44 mm). A magnetic shield for transportation and storage is included.

Compatibility: AT930, AT960, AT500, ATS600



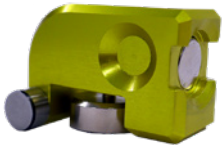
577430

## Heavy Duty 75 mm Cateye Reflector Support MAT162

Reflector support equipped with 3 strong magnets for 75 mm Cateye Reflectors. The strong magnets secure the 75 mm Cateye. Reflector and prevent it from falling. Suitable for mounting on robot arms and machinery or for permanent reference network points. It comes with an 8 mm adaptation with F7 centre-bore hole and a 3 x M6 ( $\varnothing$  65 mm) bore-hole pattern. 2 M4 eyebolts are also available and can be used to further secure the reflector support with safety chains. A magnetic shield for transportation and storage is included.

Compatibility: AT930, AT960, ATS600, AT500

## Reflector holders



577428

### 1.5" Reflector Universal Surface Adaptor MAT160

Versatile surface adaptor with adjustable magnetic base, designed for probing with 1.5" reflectors on inner and outer diameters of 200 mm or more as well as on planar surfaces. The strong magnets ensure stable reflector handling in both horizontal and vertical positions.

Compatibility: AT930, AT960, ATS600, AT500



576402

### Reflector Mount

Can be mounted on a tripod or fix-installed at a stable location to establish nominal distances for comparison measurements. To support 0.5" and 1.5" corner-cube reflectors, magnetic reflector holders versions 576073 and 576096 are recommended.

Compatibility: AT930, AT960, ATS600, AT500

Please find more reflector holder types at [shop.hexagonmi.com](http://shop.hexagonmi.com)





# Electronics

# Electronics



576875

## Battery External Li-Ion 37V/8.1Ah MPB25

External chargeable li-ion battery for AT930/960 or ATS600 Absolute Tracker models. Connects to AT/ATS Controller. Built-in charger technology – MPS21 Power Supply Unit (576873) required for charging, to be ordered separately (included as standard as part of the standard laser tracker configuration). MSI26 Universal ATC Stand Fixture (576895), to be ordered separately, required to mount the battery on a stand/tripod.

Battery specifications: 37 V / 8.1 Ah / 299 Wh  
Typical operation time: 6-8 hrs

Compatibility: AT500, AT930, AT960, ATS600



576965

## Battery External Li-Ion 36V/2.5Ah MPB100

External chargeable li-ion battery for AT930/960 or ATS600 Absolute Tracker models. Connects to AT/ATS Controller. Built-in charger technology – MPS21 Power Supply Unit (576873) required for charging, to be ordered separately (included as standard as part of the standard laser tracker configuration). MSI26 Universal ATC Stand Fixture (576895), to be ordered separately, required to mount the battery on a stand/tripod.

Battery specifications: 36 V / 2.5 Ah / 90 Wh  
Typical operation time: 2-3 hrs

Compatibility: AT500, AT930, AT960, ATS600



576876

## Battery Cable MCA24 - 0.75 m

The battery cable supports a multi-case.

- Connects MPB25/MPB100 battery to the AT Controller/ATS Controller of the AT930/960/ATS600 Absolute Tracker
- Connects 2 MPB25/MPB100 batteries in a daisy chain charging setup
- Connects MPB25/100 battery to the AT Connect Box CB21
- Connects the AT Controller to the AT Connect Box CB21

Compatibility: AT500, AT930, AT960, ATS600



# Electronics



576874

### Battery Hard Case MTC29

Hard battery case that can hold:

- 2x MPB25 Battery External Li-Ion 37V/8.1Ah (576875)
- or
- 2x MPB100 Battery external Li-Ion 36V/2.5Ah (576965)
- 1x MPS21 Power Supply Unit (576873)
- 2x MCA24 Battery Cable - 0.75 m (576876)
- 2x MSI26 Universal Stand Fixture (576895)

Empty hard case only. Accessories to be ordered separately.

Compatibility: AT500, AT930, AT960, ATS600



6009769

### Battery Set MPB25

Portable laser tracker power and charging package.

Set includes:

- 2x MPB25 Battery External Li-Ion 37V/8.1Ah (576875)
- Battery Specifications: 37V / 8.1Ah / 299.7Wh
- 1x MPS21 Power Supply Unit (576873)
- 2x MCA24 Battery Cable - 0.75 m (576876)
- 2x MSI26 Universal Stand Fixture (576895)
- 1x MTC29 Battery Hard Case (576874)

Compatibility: AT500, AT930, AT960, ATS600



6016957

### Battery Set MPB100

Portable laser tracker power and charging package.

Set includes:

- 2x MPB100 Battery External Li-Ion 36V/2.5Ah (576965)
- Battery Specifications: 36 V / 2.5 Ah / 90 Wh
- 1x MPS21 Power Supply Unit (576873)
- 2x MCA24 Battery Cable 0.75 m (576876)
- 2x MSI26 Universal Stand Fixture (576895)
- 1x MTC29 Battery Hard Case (576874)

Compatibility: AT500, AT930, AT960, ATS600

# Electronics



954519

### Battery GEB364, internal, Li-Ion, 10.8V/6900mAh

High output internal battery for the AT500 Absolute Tracker

Compatibility: AT500



575983

### T-Probe Battery Charger

Compatibility: AT960



734195

### Power Supply for T-Probe Battery

Compatibility: AT960



799185

### Charger Pro 3000 GKL311

Basic charger for one Li-ion battery. Suitable for GEB211, GEB212, GEB221, GEB222, GEB241, GEB242, GEB331 and GEB361. AC adaptor included.

Compatibility: AT500, TM6100A



799187

### Charger Pro 5000 GKL341

Professional charger to charge up to 4x Li-Ion batteries GEB241 and GEB242, AC adaptor included.

Compatibility: AT500, TM6100A



576873

### Power Supply Unit MPS21

Power supply for AT930/960 or ATS600 laser trackers. Connects to AT Controller (576871) or ATS Controller (576981). Input 80-264 VAC to output 48 VDC. For indoor use only.

The Power Supply Unit is compatible with

- AT Controller (576871)
- MPB25 Battery external Li-Ion 37V/8.1Ah (576875)
- LASC-211 Controller unit (576909)
- AT Connect Box CB21 (577377)

The MPS21 is delivered with a country based power cord.

Compatibility: AT930, AT960, ATS600



576885

MCS11 - 1.5 m

576886

MCS12 - 10 m

576887

MCS13 - 30 m

Compatibility: AT930, AT960, ATS600

# Electronics



### External Temperature Sensor

Accessory for AT930/960 or ATS600 for measuring external air and/or object temperatures. It connects to the AT Controller or ATS Controller. The temperature sensor is configured with a 2, 10 or 30 m cable and has a square 8 x 8 x 42 mm tip with a borehole  $\varnothing$ 4.2 mm to fix it to the object.

Temperature range: -20 to +80°C

Temperature accuracy:  $\pm$  0.3°C

576888

**MCA18 - 2 m**

576889

**MCA19 - 10 m**

576890

**MCA20 - 30 m**

Compatibility: AT930, AT960, ATS600, AT500



577361

### Temperature Probe Holder

Temperature Probe Holder with magnetic base for object temperature probes of AT500, AT930, AT960 and ATS600 sensor types.



577377

### AT Connect Box CB21

The AT Connect Box extends the AT Controller (576781) by power, trigger, and communication functionality for Absolute Positioner AP21 and attached sensors like the Absolute Scanner AS1.

The CB21 has a Robot I/O interface, which can be set via I/O signals or software interface.

Compatibility: AT960, AS1, AS1-XL



576981

### Leica ATS Controller

Controller for the ATS600 scanning laser tracker.

MPS21 Power Supply Unit (576873) and MSI26 Universal ATC Stand Fixture (576895) must be ordered separately.

Compatibility: ATS600



576871

### AT Controller

The AT Controller is compatible with Leica Absolute Tracker AT930/AT960 series.

The 576873 MPS21 Power Supply Unit and 576895 MSI26, Universal ATC Stand Fixture has to be ordered separately.

# Electronics



576956 MCS96 - 1.5 m  
576957 MCS97 - 10 m  
576958 MCS98 - 30 m

## Elbow Sensor Cable

Connects the AT930/960 to the AT Controller or the ATS600 to the ATS Controller. Tracker-side has a 90-degree elbow plug, which enables tracker setup at a minimum height above the mounting surface (e.g. on a machine bed).

Compatibility: AT930, AT960, ATS600



577379 MCA110 - 10 m  
577380 MCA111 - 20 m

## Positioner Sensor Cable

Cable for connecting the Absolute Positioner AP21 (577368) with the AT Connect Box CB21 (577377).

Compatibility: AT960, AS1



576876 **Battery Cable MCA24 - 0.75 m**

The Battery Cable supports a multi-case.

- Connects MPB25/MPB100 battery to the AT Controller/ATS Controller of the AT930/960/ATS600 Absolute Tracker
- Connects 2 MPB25/MPB100 batteries in a daisy chain charging setup
- Connects MPB25/100 battery to the AT Connect Box CB21
- Connects the AT Controller to the AT Connect Box CB21

Compatibility: AT930, AT960, ATS600, AT500



577419 **Wireless Bluetooth Remote Control MAR137**

Wireless remote control with programmable buttons.

Connection types: Bluetooth Low Energy and 2.4 GHz wireless connection.

Working range up to 30 m.

Compatible with Windows 10 or later.

Compatibility: AT930, AT960, ATS600, AT500

# Electronics



855240  
576903  
873553

### Trigger/Probe Cable MCA114

Connects AT Controller to AT Connect Box CB21 (577377).

MCA114 - 0.75 m

MCA47 - 2 m

MCA113 - 15 m

Compatibility: AT960, AS1



577384

### LAN-cable RJ-45 Cat6 MCA115 - 0.75 m

Connects AT Controller to AT Connect Box CB21 (577377).

Compatibility: AT960



575899

### LAN-cable RJ-45 Cat6 MCA134 - 5 m

Connects tracker system and application computer.

Compatibility: AT500, AT930, AT960, ATS600



575972  
575973  
576185

### Cable T-Probe

Reserve or replacement cable for the T-Probe.

10 m

20 m

50 m

Compatibility: AT960



812792

### USB-to-micro-USB cable for B-Probe plus

For firmware-upgrade via PC



**D = 90.005 mm**  
Thermal expansion coefficient:  $23.4 \times 10^{-6} / \text{K}$   
Reference temperature:  $20^{\circ}\text{C}$

**SN:001**

# Compensations and field checks

# Compensations and field checks



576893

## **Invar Reference Bar MAC55, 1000 mm**

Low thermal expansion length reference bar provides a stable length for use during laser tracker or scanner jobs. Can be directly placed on the floor/table (3-point feet). Includes supports 0.5", 7/8" and 1.5" reflectors, certificate, case with contour-cut foam.

- Bar length uncertainty: +/-0.007 mm
- Weight: 1.45 kg (3.86 kg with case)

Compatibility: AT500, AT930, AT960



576894

## **6DoF Compensation Kit MAC23**

For on-site compensations of the integrated 3D and 6DoF Absolute Tracker system components. Consists of tripod interface (5/8" thread), compensation frame and light-duty magnetic holder for tooling ball reflectors 0.5". For the process a Red-Ring Reflector 0.5" (575739) and a T-Probe cable is required (20 m, 575973) – to be ordered separately.

Compatibility: AT960



# Compensations and field checks



576947

**Reference Sphere MAC87 - d=90 mm**

Reference artefact designed for field checks and alignments of scanning systems.

Consists of:

- Aluminium reference sphere, with support
- Diameter: 90 mm
- Sphericity/roundness: 0.030 mm
- Weight: 1200 g
- Certificate

The included Reference Sphere Support has a central UNC 5/8"-11 thread, which is compatible with our stands (MST36, AT21, AT28), as well as 2 universal 7 mm bore holes.

Compatibility: AT960, AS1-XL

575980

**T-Probe Compensation Kit**

For on-site compensation of Leica T-Probe. Comes with T-Probe reference frame, wedge tool, tripod screw and light duty magnetic holder for 0.5" Red Ring Reflectors. Requires additional 0.5" Red Ring Reflector (corner cube) for compensation process. The T-Probe compensation kit fits into the T-Cam compensation kit shipping container.

Compatibility: AT960

# Compensations and field checks



576899

## T-Probe Stylus Compensation Tool MAC34

The MAC34 is used for on-site T-Probe Stylus compensations of various styli configurations. The MAC34 can be extended for Shank-Stylus with the T-Probe Stylus Shank Compensation Tool (576247).

Compatibility: AT960



576900

## Magnetic Device MAC35 for MAC34

For use with MAC34 T-Probe Stylus Compensation Tool (576899). Holds to any magnetic surface. Magnetic force can be switched on and off. The MAC34 T-Probe Stylus Compensation Tool must be ordered separately.

Compatibility: AT960



576247

## T-Probe Stylus Shank Compensation Tool MAC57

Accessory for compensating cylindrical probe styli. Must be mounted on the MAC34 T-Probe Stylus Compensation Tool (576899), which must be ordered separately.

Compatibility: AT960



577401

## Reference Sphere MAC133 - d=25.4 mm

The Reference Sphere is designed for field checks and alignments of scanning systems.

- Diameter: 25.4 mm
- Material: Tungsten carbide with matte finish
- Certificate and base plate included
- Base plate has a central UNC 5/8"-11 thread, which is compatible with tripods (576901 MST36, 575483 AT21, 575484 AT28). In addition there are 2 universal 7 mm bore holes.

Note: The sphere is already included in the AS1 Kit

Compatibility: AT960, AS1



576512

## B-Probe<sup>Plus</sup> Stylus Compensation Tool



576401

## Mirror Tool

Used to measure distances between 2 points with a laser tracker using only the interferometer. This basic set includes holders for 0.5" and 1.5" reflectors (2 units each, version 576073 and 576096). This tool can also be used to generate nominal distance values for the planned VDI/VDE standard.

Compatibility: AT500, AT930, AT960, ATS600

# Compensations and field checks



576898

## Optical Cleaning Kit MAT33

Does away with solvents, harsh cleaning products and messy lens tissues that can leave ugly and problematic smears that ruin measurement quality. Suitable for cleaning AT500/930/960 or ATS600 sensor optics as well as reflectors.

The kit includes:

- 1 Dust ex blower (167119)
- 2 Cleaning Tissues (771349)
- 8 Cleaning Swabs, large (758346)
- 5 Cotton Swabs, small (724954)
- 1 Cleaning Brush (822420)
- 1 Cleaning Kit Bag (821236)

Compatibility: AT500, AT930, AT960, ATS600



575483

## Aluminium Tripod AT21

Robust and light-weight tripod with 5/8" thread. Suitable for industrial theodolites as well as laser tracker field check equipment for laser trackers.

Instrument height: 1.4 - 2.1 m, weight: 11 kg



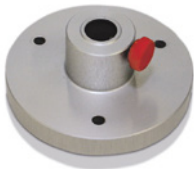
575484

## Aluminium Tripod AT28

Robust and light-weight tripod with 5/8" thread and adjustable centre column.

Suitable for industrial theodolites, as well as laser tracker field check equipment for laser trackers.

Instrument height: 1.4 - 2.8 m, weight: 12 kg



575837

## Tripod Adaptor

To be used for various alignment or compensation measurements. Thread for tripod 5/8". Bore hole 12 mm (supports 577104/577208, not included)

Compatibility: AT500, AT930, AT960, ATS600



577429

## Tripod Adaptor for 1.5" Reflector MAT161

Compact and lightweight 1.5"

Reflector adaptor with magnetic insert for tripods equipped with 5/8"-11 thread. Ideal for field check and sensor compensation tasks.

Compatibility: AT930, AT960, ATS600, AT500



HEXAGON

AS1

↑↑↑  
ABSOLUTE SCANNER

# Other accessories

Measurement cart **78**

Transport case and container **79**

Further accessories **83**

# Measurement cart



576950

## Absolute Tracker Measurement Cart MMC91

Cart is compatible with AT930/960 or ATS600. Contains a flexible shelf system for installation controllers, UPS and computers. Controller and computer compartment is temperature regulated (built-in fan). Cart can be used like a regular measuring cart or reconfigured to a shuttle cart. Drawers equipped with preconfigured foam inlays for storing AT500, AT930/960 or ATS600, scanners, reflectors and reflector supports, as well as Leica T-Probe, styli and extensions. The main cart desktop can be extended with a foldable side-table.

The cart consists of:

- Measurement Cart with shelf compartment, drawers and lockable wheels
- 2x belt with snap hook and quick-connect buckle to fix tracker and/or stands on shuttle rail
- Power strip (US or EU version)
- 5x drawer inlays
- Velcro straps for controller and computer fixation
- USB-fan with USB extension cable
- Mechanical interface for forklift manipulations
- Cable Drum

Cart compartment and drawers are lockable with a key system (2 keys included). Dimensions L=1.20 m, W=0.70 m, H=1.10 m.

Compatibility: AT500, AT930, AT960, ATS600



576942

## Metrology Cart Modification Kit MMC31

Kit for modifying a standard metrology cart to fit various laser tracker and laser scanner systems.

Kit includes:

- Installation manual
- Drawer with foam inlay for T-Scan 5 and LAS/LAS-XL scanners - not compatible with AS1
- Scanner controller shelf with Velcro tapes for controllers and power supplies
- Foam inlay for AT930/960 and ATS600 sensors
- Set of installation material

The modification kit is compatible with the MMC31 Measurement Metrology Cart (576896) only.

Compatibility: AT930, AT960, ATS600



576953

## Dust Cover MAM94

Cover compatible with the following measurement carts:  
MMC91 (576950) and MMC31 (576896).

# Transport case and container



576891

## AT930/AT960/ATS600 Transport Container MTC51

Standard transportation case to fit various laser tracker systems and accessories.

The transport container can hold:

- Absolute Tracker AT930/AT960 (576861-576865) or ATS600 (576971)
- AT Controller (576871) or ATS Controller (576981)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable 1.5 m (576885)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor 2 m (576888)
- Red-Ring Reflector (RRR) - 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover

Empty transport container only. Accessories to be ordered separately.

Dimensions: L=62.5 cm, W=50 cm, H=36.6 cm (L=24.60", W=19.70", H=14.40")

Compatibility: AT930, AT960, ATS600



577446

## AT500 Transport Container MTC135

Robust carry case for the Absolute Tracker AT500 and accessories.

The Transport Container can hold:

- AT500 Absolute Tracker (577440)
- MPS134 Power Supply Unit (577407)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18, External Temperature Sensor 2 m (576888)
- Red Ring Reflector (RRR) 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective sensor cover

Empty transport container only. Accessories to be ordered separately.

Compatibility: AT500

# Transport case and container



577400

## Absolute Scanning-Probing Case MTC131

The MTC131 Trolley Case can hold:

- Absolute Scanner AS1 (577367)
  - Absolute Scanner AS1-XL (577402)
  - MAP101 Absolute Positioner AP21 (577369)
  - MAP102 Grip (577370)
  - AT Connect Box CB21 (577377)
  - MCA110 Positioner Sensor Cable - 10 m (577379) or
  - MCA111 Positioner Sensor Cable - 20 m (577380)
  - MPS21 Power Supply Unit (576873)
  - MCA24 Battery Cable - 0.75m (576876)
  - MCA114 Trigger/Probe Cable - 0.75 m (855240)
  - MCA115 LAN-cable RJ-45 Cat6 - 0.75 m (577384)
  - MAC133 Reference Sphere - d=25.4 mm (577401)
  - MAC87 Reference Sphere - d=90 mm (576947)
  - MAP116 Positioner Horizontal Holder (577385)
  - MAP144 Positioner Clip Support (577404)
  - MPB25 or MPB100 Battery External Li-Ion (576875, 576965)
  - Leica T-Probe III (576186) incl. 2 batteries, power supply compensation tool and stylus
  - 2 x 1.5" Red Ring Reflectors (575784)
  - MAT22 Pass Point Target Kit (576249)
  - MAT158 Reflector Support Starter Kit (577426)
  - T-Probe Styli Kit (576231)
  - Stylus Extension 400 mm and 600 mm (576215 and 576216)
- Dimensions: L=79.5 cm, W=51.8 cm, H=39.4 cm (L=31.30", W= 20.40", H=15.50")  
Weight: 12.6 kg (empty), 29.0 kg (fully equipped)

Note:

Empty trolley case only. Accessories to be ordered separately.

Compatibility: AT960, AS1, AS1-XL, T-Probe III



# Transport case and container



577387

## Absolute Scanner Trolley Case MTC118

The MTC118 Trolley Case can hold:

- Absolute Scanner AS1 (577367), incl. Certificate
- Absolute Positioner AP21 (577369)
- MAP102 Grip (577370)
- AT Connect Box CB21 (577377)
- MCA110 Positioner Sensor Cable - 10 m (577379)
- MCA24 Battery Cable - 0.75 m (576876)
- MCA114 Trigger/Probe Cable - 0.75 m (855240)
- MCA115 LAN-cable RJ-45 Cat6 - 0.75 m (577384)
- MAC133 Reference Sphere - d=25.4 mm (577401)
- MAP116 Positioner Horizontal Holder (577385)
- MSI26 Universal ATC Stand Fixture (576895)
- MAP117 Positioner Clip Support (577386)

Dimensions: L=53.8 cm, W=40.6 cm, H=26.9 cm (L=21.20", W= 16.00", H=10.60")

Note:

Empty trolley case only. Accessories to be ordered separately.

Compatibility: AT960, AS1, AS1-XL



## Further accessories



576379

**AT Remote Control 400**

Wireless infrared control unit compatible with Absolute Tracker AT500.

Content: Remote control unit 2x AAA-batteries.

Compatibility: AT500



874298

**Surface Sample Tool**

Demonstrating and comparing scanning sensors on difficult materials is now possible. Use the Surface Sample Tool to demonstrate the capability of our scanning devices. The Surface Sample Tool consist of 12 different surface sample materials: metal coated Aramide fibre with clear coat finish, black felt textile, white car paint 2K/clear coat, black car paint 2K/clear coat, red car paint 2K/clear coat, yellow car paint 2K/clear coat, carbon fibre flat finish (grinded), green car paint 2K/clear coat, carbon fibre semi-gloss finish (preg), blue car paint 2K/clear coat, carbon fibre gloss finish (clear coated) and chrome plated.

Dimensions: 290 x 150 x 13 mm, weight: 620 g



# Industrial theodolites

Industrial theodolites **86**

Accessories for industrial theodolites TM6100A **87**

# Industrial theodolites



576372

## Motorized Industrial Theodolite TM6100A

With pan focal telescope, build-in autocollimation eyepiece and GUS29 internal target. Including user manual, upright container and Calibration Certificate "Gold". 12-month warranty.



576528

## Optional Second Keyboard GTS39

Additional keyboard with touchscreen and colour display. Fits to telescope position 2 (factory fitted). Must be configured with a new instrument and cannot be ordered separately.



308838

## Eyepiece FOK53

Viewing eyepiece with 44x magnification at 10 m. Optically adjusted and fitted in factory (only to be ordered with new instrument).

# Accessories for industrial theodolites TM6100A



799658

**Screen protector SPF03**

Reserve or replacement touchscreen protection foil for protection against scratches and dust.



793979

**Diagonal Eyepiece GFZ3**

For telescope — except T100

The TM6100A requires counterweight 712504, which needs to be ordered separately.

Compatibility: TM6100A



712504

**Counterweight (GOK6)**

Required counterweight for using GOK6 Steep Sight Eyepiece.



575725

**Plug-in Lamp AL51**

392368

**Autocollimation Mirror GAS1**

Mirror for autocollimation with diameter of 50 millimetres, delivered in a case.



723231

**Counterweight (DL2/3)**

Required counterweight for using DL2/3 diode laser with TM5100A/TM6100A.

# Accessories for industrial theodolites TM6100A



576352

**Tribrach PRO without Optical Plummet GDF321-I - light grey**

Compatibility: TM6100A



576353

**Tribrach PRO with Optical Plummet GDF322-I - light grey**

Compatibility: TM6100A



417677

**Measuring slide (single direction) GMT5**

With maximum working range 40 mm; least count 0.01 mm.

Compatibility: TM6100A

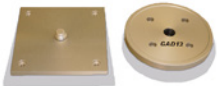


417678

**Adaptor set GAD12**

For mounting GMT5 translation stage onto any Leica tribrach; includes tribrach to mount instrument; typical adapter set for theodolites and total stations.

Compatibility: TM6100A



417679

**Adaptor set GAD13**

For mounting GMT5 translation stage onto 5/8" thread; includes adaptor plate with 5/8" thread to mount instruments; typical adaptor set for levels.

Compatibility: TM6100A



# Accessories for industrial theodolites TM6100A



575483

### Aluminium Tripod AT21

Robust and light-weight tripod with 5/8" thread. Suitable for industrial theodolites, as well as laser tracker field check equipment for laser trackers.

Instrument height: 1.4 - 2.1 m, weight: 11 kg



575484

### Aluminium Tripod AT28

Robust and light-weight tripod with 5/8" thread and adjustable centre column. Suitable for industrial theodolites, as well as laser tracker field check equipment for laser trackers.

Instrument height: 1.4 - 2.8 m, weight: 12 kg



296632

### Telescopic Tripod with Accessories GST20

Robust, well-established tripod for general use. Suitable for levels, lasers, Total Stations and GPS. Extendible 180 cm (5.9ft), weight 6.4 kg (14.1lb)

Compatibility: TM6100A



332200

### Tripod Base GST4

For setting up GST tripods on smooth surfaces.

Compatibility: TM6100A

# Accessories for industrial theodolites TM6100A



793975

## **Lithium-Ion Battery GEB242**

Rechargeable 14.8V/5.8Ah battery.

Compatibility: TM6100A



799185

## **Charger Pro 3000 GKL311**

Basic charger for one Li-ion battery. Suitable for GEB211, GEB212, GEB221, GEB222, GEB241, GEB242, GEB331 and GEB361. AC adaptor included.

Compatibility: TM6100A, AT500



799187

## **Charger Pro 5000 GKL341**

Professional charger to charge up to 4x Li-ion batteries GEB241 and GEB242, AC adaptor included.

Compatibility: TM6100A, AT500



774437

## **Charger GEV242 for GEB371 external battery**

for indoor use only, input 100V-240VAC 50-60HZ, output 24VDC, cable with 5-pin Lemo to connect to battery.



905305

## **External Battery Li-ion GEB373**

13V, 289Wh. Quick Guide and User Manual, multilingual included

# Accessories for industrial theodolites TM6100A



575427

**T-LINK Interface**

Power supply unit for TPS, for indoor use only. Input 94-265VAC to output 12VDC. Connects up to 4 TPS6000 instruments or up to 8 TPS5000 instruments.



576521

**Power cable GEV286-I 20 m**

Connects TPS6000 instrument with power supply T-Link/GEV270 or external battery GEB371.



800497

**Cable spool**

for 20 m/40 m cables (without cable)



576388

**USB adapter RS232 serial**

574834

**Cable to connect DL2/3 and intensity regulator.**

527497

**Data cable GEV86 - 20 m**

Connects DL2/3 intensity regulator or TPS5000 instrument to external power supply T-LINK/GEV270 or external battery GEB371.



576387

**Power Cable GEV64-I - 1.2 m**

connects TM6100A with DL2/3 intensity regulator.

# Accessories for industrial theodolites TM6100A



6013373

## Interface Set TPS6000

Consists of: GDF321-I Industrial Tribrach w/o opt. Plummet GKL341 Professional Charger 5000, MCF256 Compact Flash Card, GEV269 Data Transfer Cable Lemo1 / USB



806093

## Serial data transfer cable GEV267 - 2.0 m

converter cable USB to serial (Lemo to USB connector), connects TPS02/06+/09+/11/12/15/DNA/TPS5000 to PC. PC driver included on CD.



807696

## Power supply GEV270 for TPS5000/TPS6000

for indoor use only, Input 100 - 240V AC to output 13.8V DC, with connection for power cables.  
Requires GEV219, GEV220 or GEV286-I power cable to connect TPS6000 instrument.



758469

## Power cable GEV219 - 1.8 m

Connects TPS6000 instrument with power supply GEV270 or external battery GEB371.



759257

## Y-Cable GEV220 - 1.8 m

Connect TPS6000 instrument to PC (9-pin RS232 serial) and power supply GEV270 or external battery GEB371.



733282

## Data transfer cable GEV162 - 2.8 m

Connects TPS6000 instrument to PC for data transfer, firmware upload etc., Lemo 1 to 9-pin RS232 serial connector.



806095

## Serial data transfer cable GEV269 - 2.0 m

Connects TPS6000 instrument to PC for data transfer, firmware upload etc., converter cable USB to serial (Lemo 1 to USB A connector), PC driver included on CD.



758513

## Adapter cable TPS6000

(Lemo 0 - Lemo 1)

# Accessories for industrial theodolites TM6100A



707525 **Lemo Canon converter GK1 30°, for PC**



**Compact Flash card**

733257 MCF256 - 256 MB  
745995 MCF1000 - 1 GB



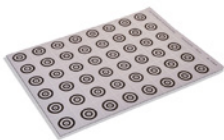
767895 **USB card reader MCR7**  
for SD- and CF-cards



733258 **Compact Flash PC Card adapter MCFAD1**



409678 **Data cable GEV52 1.8 m**  
Connects DL2/3 intensity regulator to external power supply T-LINK/GEV270 or external battery GEB371.



571549 **Targets on self-adhesive-foils**  
Black/white,  $\varnothing$  23 mm with concentric circles, 48 pieces on one sheet.



574681 **Target for orientation measurements, magnetic.**



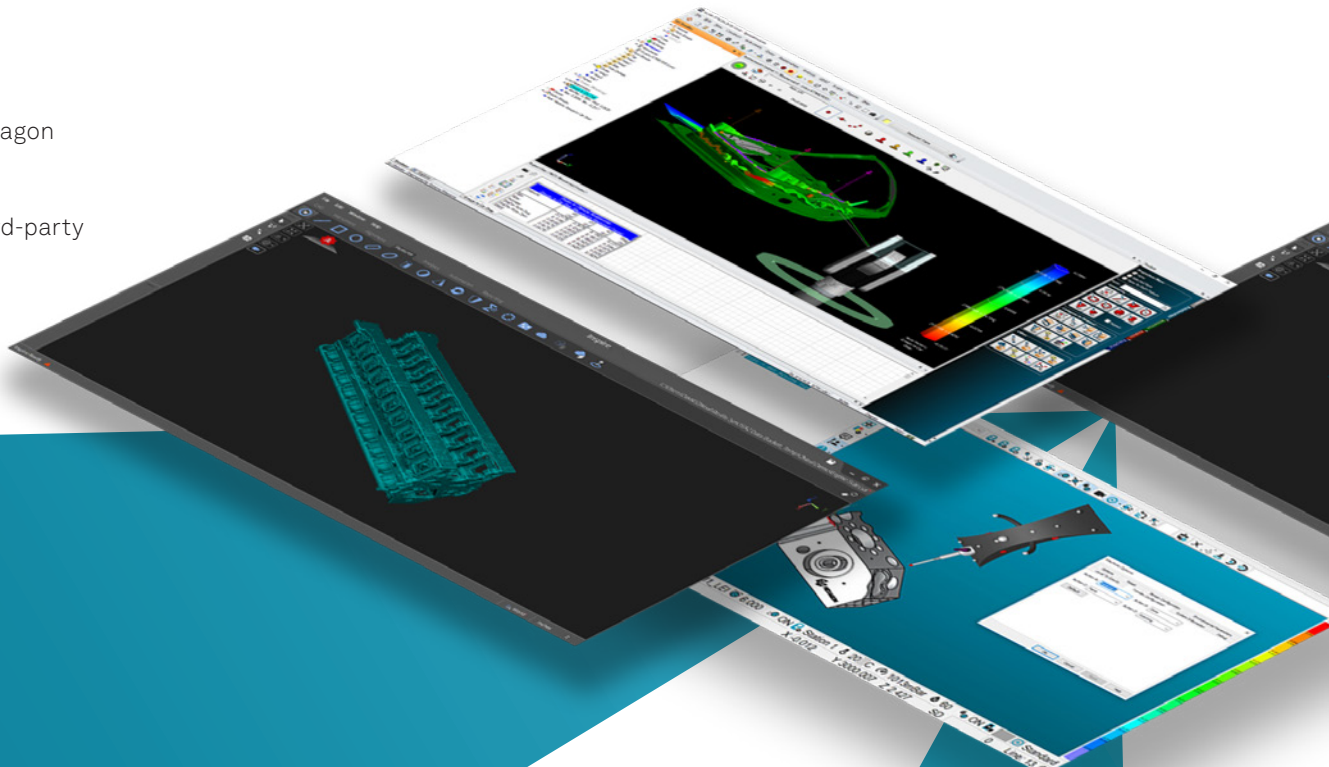
800742 **Scale bar - 0.9 m**  
Carbon fibre, incl. Producer Certificate, in carrying case.

# Driving the tools of high-end inspection

Hexagon is the largest software developer in the metrology industry and offers a wide range of individually customisable software packages. Hardware solutions from Hexagon support this with a foundation of cross-platform compatibility, designed for perfect functionality with both the many advanced platforms developed in-house and the best third-party programs on the market.

SpatialAnalyzer	Inspire	PC-DMIS	VISI Reverse	TRAC-CHECK
PolyWorks®	Metrolog X4	Verisurf	BendingStudio	REcreate
DM Works	Silma / X4-iRobot	HxGN Robotic Automation	RoboDyn	

- Hexagon
- Third-party



# Application Software

Hexagon software 96

Third-party software 102

# Inspire

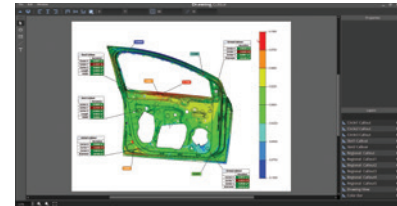


## User-friendly measurement software for portable probing and scanning

Inspire is the next generation inspection software for all portable probing and scanning devices. Inspire is a new software package that makes measurement simple and the complex possible. With one simple interface, Inspire works with laser tracker for probing and scanning applications. Intuitive and easy to use, Inspire software is a comprehensive solution that makes measurement simple, saves time, and ultimately improves productivity.

### Inspire capabilities

- Measure
- Align
- Assemble/Build
- Analyse
- Report
- Scan and Probe
- Mesh
- Instrument networking
- Advanced Scripting
- CAD Import



Single Seat Licence includes all hardware interfaces and supports IGES, STEP, STL, CATIA, Solidworks, NX, ProEngineer, Inventor and Parametric CAD import. Training classes available at additional cost and updates for 1 year. Inspire provided with licence code.



# SpatialAnalyzer®

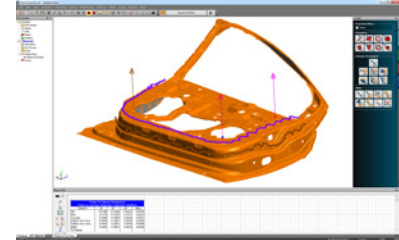


## Powerful and traceable measurement and analysis software

SpatialAnalyzer® (SA) is a powerful, traceable and easy to use metrology and analysis software package, tailored for Hexagon's Manufacturing Intelligence portable CMM family.

SA offers a vast number of benefits, including:

- Intuitive, state of the art graphical environment.
- Interfaces to all Hexagon Manufacturing Intelligence portable CMMs.
- All common CAD exchange and native formats.
- Advanced analysis and processing and unique alignment techniques.
- Easy multiple-instrument station bundling.
- True GD&T and feature checks.
- Numerous reporting options.
- Measurement uncertainty calculation.
- Unified Spatial Metrology Network to achieve the ideal instrument network.
- Integrated Modern Scripting Language to automate complete workflows.
- Multiple language support.
- Free SA Viewer to share SA job files easily.

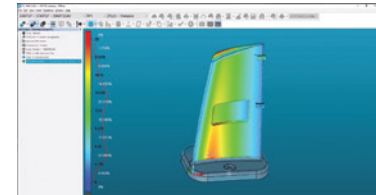


# PC-DMIS Portable



**Supporting systems from CMMs to portable measuring arms and laser trackers, PC-DMIS is a measurement software solution for metrology professionals and shop-floor operators**

Portable measurement devices have changed the way operations are monitored, making it possible to take measurements and analyse the results directly where parts are made and assembled. PC-DMIS Portable provides the tools needed to more effectively monitor operations and identify minor issues before they turn into costly problems.



## PC-DMIS CAD++ Probing

Includes LMS license + all Portable interface (ROY-I-PORTABLE) + XACT GD&T + IGES / DXF / DWG / STEP203 / STEP 214 / VDAFS / XYZIJK / DES and DMISI/O translators and updates for 1 year

## PC-DMIS CAD++ Scanning

Includes LMS license + All Portable interfaces (ROY-I-PORTABLE) + Hexagon Scanning Probe Interface + Scanning Auto Features + Full COP support + XACT GD&T + IGES / DXF / DWG / STEP203 / STEP 214 / VDAFS / XYZIJK / DES and DMISI/O translators and updates for 1 year.

## PC-DMIS CAD++ Scanning/Mesh

Includes LMS license + all Portable interfaces (ROY-I-PORTABLE) + Hexagon Scanning Probe Interface + Scanning Auto Features + Full COP support + XACT GD&T, IGES / DXF / DWG / STEP203 / STEP 214 / VDAFS / XYZIJK / DES and DMISI/O translators + STL Mesh Creation and Inspection and updates for 1 year.

# VISI Reverse

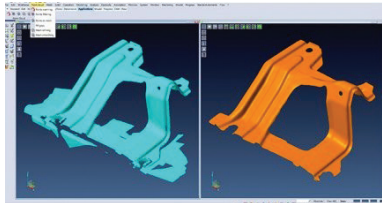
## The shortcut from 3D scan to manufacturing

VISI Reverse, an intuitive module that can be added to the mold and stamping industry leader VISI application from Hexagon, combines hybrid modelling CAD functionality with 3D scan data processing abilities so that easily customers can create fully compatible editable solid models starting from digitized/scanned data.

### Features at a glance:

- Direct import of point cloud from scanning device
- Automatic mesh creation / cleaning / smoothing
- Dynamic wireframe grid construction
- Automatic surface creation

Powerful and Flexible. VISI Reverse is born to import unlimited scanned data directly from Hexagon portable devices such as the Absolute Arm or the Leica Absolute tracker, or from a generic CSV file format and to convert these data point clouds into a usable mesh, a fully editable geometrical model or a hybrid model.



# REcreate

## The reverse engineering software that perfectly combines powerful capability with an optimal user experience

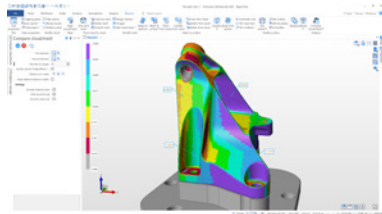
REcreate takes the complexity out of reverse engineering to create a smarter, faster and more flexible design and production environment for modelling new products and for repairing or replacing parts.

### Making sophisticated design simple

Highly flexible, REcreate stands apart from traditional reverse engineering software by incorporating a CAD system that can create 2D drawings as well as CAD models. REcreate fits into any existing production workflow and is versatile enough to be used as a standalone product, working with machines that don't use CAM data, or as part of an end-to-end CAD to CAM solution. Other key functionalities include direct modelling, which makes it easy for users to form the shape they require.

### A full range of reverse engineering applications

The ease-of-use and interoperability of REcreate make it simple for users to capture data by connecting directly to scanning devices or importing mesh, solid, surface or point cloud data. They can model designs in a single environment using a full array of modelling data and manufacture using CAD/CAM – as well as validate quality. And they can start at whichever point in the reverse engineering process that best suits their needs.



# TRAC-CHECK

## For check of large machine tools according to traceable standards

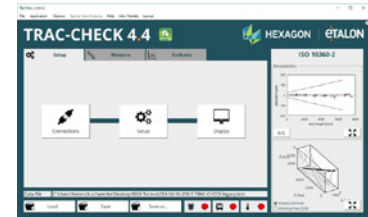
For large machine tools (> 5 m) it is also possible to use a laser tracker from Hexagon to check machine accuracy according to standards by the software ETALON TRAC-CHECK.

### ETALON TRAC-CHECK software solution

Innovative measuring software to ensure machine tools meet international standards for precision

The ETALON system uses multilateration, a spatial measurement technique deployed by satellite navigation systems, to increase measurement speeds and ensure the highest levels of accuracy when calibrating, compensating and verifying machine tools. The speed and precision of multilateration means manufacturers can reduce measurement times by up to 80% compared to conventional laser interferometers, thereby securing results in one to two hours instead of one to two days.

ETALON TRAC-CAL | TRAC-CHECK uses a single self-tracking laser interferometer either from ETALON or the Leica Absolute Tracker AT930/960. This makes measurements more accurate and traceable, while reducing the maintenance and recalibration costs.



# BendingStudio

## A single hub for complete tube and wire inspection

The BendingStudio XT software platform is a complete end-to-end solution for tube and wire inspection and production control. The software links all data and processes related to the production of bent parts, from design and process planning to manufacturing and quality control. BendingStudio XT is the only tool to meet and combine these requirements with an emphasis on metrological processes.

Evaluate parts quickly with clear actual-nominal value comparison. Implement multiple inspection plans with individual measurement criteria for each part. Enjoy comparable result presentation no matter the origin of the data. Benefit from a unique calculation method for the correction of complex bent parts such as brakelines with end formings or parts with clamping jaws. Make use of overlength compensation, with smart, customisable and part-specific calculation of correction data.

BendingStudio XT is the complete package for complex analysis and management of tube and wire production.



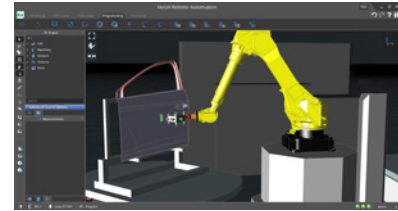
# HxGN Robotic Automation



## Intuitive, flexible and scalable software to power robotic inspection cells

HxGN Robotic Automation is an intuitive, flexible and scalable robotic control software designed to simplify programming for automated measurement and inspection applications.

The HxGN Robotic Automation software provides the toolset to efficiently plan, program and control robotic cells based all major robot suppliers, as well as integrating with the wider manufacturing software ecosystem, simplifying the data acquisition process for smarter manufacturing processes. Created specifically to orchestrate the sensors, software and robotic equipment of an inspection cell from a single, intuitive interface, HxGN Robotic Automation makes automated measurement more accessible, more efficient and more reliable.



# RoboDyn

## For check of robot according to traceable standards

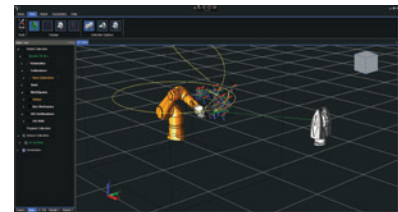
Innovative software solution delivering full calibration and performance testing functionality for industrial robotic systems.

The RoboDyn robot calibration and inspection system delivers complete robotic control, making it simple to get the most out of the precision, flexibility and intelligence automated systems have to offer.

With the ability to calculate robot base alignment and tool centre point offsets as well as directly correct and compensate for robot parameters, the RoboDyn software is the perfect tool for improving absolute positioning and performance of robotics. Designed to meet the demands of the ISO 9283 standard, RoboDyn guarantees accuracy and reliability throughout automated operations.

Simple and easy to use, RoboDyn allows for on-the-spot modification of robot models, followed by fast recalibration. Coming alongside the full capability for offline simulation, RoboDyn has the potential to transform process productivity across manufacturing, installation, testing and logistics areas.

For static and dynamic data acquisition, RoboDyn requires use in conjunction with a quality Leica Absolute Tracker featuring precision, speed, large measurement range, portability and the capacity for 6DoF measurement.



# Third-party software

## PolyWorks®

Polyworks is a software solution for high-end point cloud inspection and reverse engineering applications.

Whether you are casting, milling, molding or stamping, you can rely on PolyWorks to provide a complete solution for your process. The PolyWorks software suite is available as a complete package or - with regard to the two main applications - as a point cloud inspection or reverse engineering package.

PolyWorks®, developed by InnovMetric Software Inc, Canada, is a solution for high-end point cloud inspection and reverse engineering applications.



## Metrolog X4

The global 3D inspection software is a standard for measuring applications in automotive, aerospace and the general precision industry.

Metrolog X4 interfaces to the Absolute Trackers, the “Walk-Around” Leica T-Probe and the Absolute Scanner AS1. In addition, more than 50 interfaces for CMMs and PCMMs are available. The graphical visualisation provides direct interfaces for virtual any neutral and native CAD format. A powerful feature-based measurement tool, a complete GD&T engine, customizable reporting and a simple and fast programming language, support and simplify your sophisticated assembly and inspection processes. Metrolog X4 is available in 19 languages.

Metrolog X4, developed by Metrologic Group of Europe, the global 3D inspection software is a standard for measuring applications in automotive, aerospace and the general precision industry.



## Verisurf

Verisurf is an all-in-one metrology software solution for alignment, inspection, tool building, assembly, scanning, analysis, reporting, automation, and reverse engineering applications.

Verisurf Software, Inc., is a measurement solutions company committed to delivering powerful, easy-to-learn metrology software. Verisurf supports all 3D measurement workflows, including alignments, inspection, tool building, assembly, scanning, analysis, reporting, automation, and reverse engineering. Verisurf’s robust foundation supports all CAD file types and interoperability with all contact and non-contact measurement devices.



## DM Works



DMWorks is a software package for automated applications comprised of different modules. It allows the creation of a measurement cell, the running of simulations, the generation of robot paths and even control of a measurement cell.

DMWorks-LSA (Leica Scan Automation):

- General purpose virtual measurement simulation and robot offline programming software for multiple LSA systems
- Accurately arrange and create virtual measurement workcell by aligning all devices to minimise position errors between virtual and physical systems
- Generate optimised robot scanning path for each measurement feature with robot motion simulation.

LSA-Controller

- Integrated measurement control and operation software for one specific LSA system
- Collect and display real-time scanned point cloud data that can be transferred for analysis
- Provides a simple procedure for system recovery when system error occurs

LSA - Simulator

- OLP simulator for one specific LSA system
- Virtual measurement simulation
- Virtual measurement workcell alignment
- Offline robot programming

## Silma / X4-iRobot



Silma is the advanced simulation software package from Metrologic which enables the creation of part program offlines, to check for risk of collision and path optimization. The Metrolog X4 i-Robot is the software package which runs the robot and measurement program in a single package, providing reports in a single software platform.





# Metrology Asset Manager

## The smart choice for smart manufacturing



### Real-time performance data in a centralised user-friendly dashboard, now as standard

Metrology Asset Manager delivers a simple, accurate and reliable way to monitor and analyse how key assets are performing via a centralised, user-friendly dashboard, whether on a single site or distributed across multiple locations around the world.

This future-proof solution provides manufacturers with easy and intuitive access to important information in real-time to allow for better informed decision making. Smart measurement and smart monitoring are the future of smart manufacturing.

- Monitor and manage device status, usage and performance.
- Securely access information from anywhere in real time.
- Identify production bottlenecks and other sources of inefficiency.
- Receive customisable critical event notifications.
- Easily locate individual or fleets of portable assets with GPS tracking.
- Track assets across a single site or at multiple worldwide locations.



The Metrology Asset Manager solution is fully compatible with AT960, AT930, ATS600 and AT500 Absolute Tracker models. Every model in the Absolute Tracker range now includes a year's subscription to Metrology Asset Manager Advanced.



Metrology Asset Manager

## World-class products to rely on

Drawing on decades of research and development experience, laser tracker technology from Hexagon's Manufacturing Intelligence division is built on a long history of outperforming technological innovation. Deriving quality from experience to drive productivity is what keeps Hexagon in front and able to deliver first-class solutions for industries around the world.

That's why every major laser tracker product in this brochure comes with a 24-month factory warranty as standard, as well as a guaranteed 10 years of serviceability through official Hexagon service channels.

## World-class support delivered locally

The international presence of Hexagon guarantees comprehensive aftersales support and services across the globe. With the largest dedicated service team of any metrology equipment manufacturer and an emphasis on locally delivered solutions, Hexagon is unmatched from service, repair, certification and calibration through operator training and software maintenance and upgrades.



● Customer and demo centre

○ Production facility

● Tracker service centre

## World-class service made simple

Hexagon offers a wide range of support services extending well beyond the point of purchase. Delivered by experienced and skilled engineers at ISO-certified laboratories, local Hexagon Precision Centres or even on-site to minimise downtime, our after-sales portfolio is the most complete on the market.

- Maintenance and warranty plans that ensure equipment availability
- Trouble-free usage and minimal downtime
- Preferred hotline access at no additional cost
- Access to professional advice whenever needed

# Customer Care Packages

Owners of the Hexagon laser tracker products featured in this brochure also have the opportunity to invest in a Customer Care Package designed to ensure equipment remains in top condition and can be relied on for accurate measurement results throughout a lifetime of use.

Customer Care Packages include a selection of the following benefits, depending on the tier chosen.

	Platinum	Gold	Silver	Bronze
Planned annual service	✓	✓	✓	✓
Customer hardware support	✓	✓	✓	✓
Annual maintenance and recertification	✓	✓	✓	
Remote connected assistance	✓	✓		
Repair parts and labour	✓			
Customised local benefits	✓	✓	✓	✓

For complete details of the benefits of each level of Customer Care Package, please contact a local Hexagon representative.



Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Manufacturing Intelligence division provides solutions that use data from design and engineering, production and metrology to make manufacturing smarter.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at [hexagon.com](https://www.hexagon.com) and follow us [@HexagonAB](https://twitter.com/HexagonAB).